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Page

WORLD'S LARGEST AIRCRAFT FACTORY USES PORCELAIN ENAMELED REFLECTORS ..... by Frank Clayton and F. N. Straus 9

"JINXED" PORCELAIN ENAMELED TURF CLUB ADOPTED BY NAVY .....by Elsa Gidlow 13

THE HOW AND WHY OF SIGN ADVERTISING ..... by Ken Davee 16

A. G. A. E. M. ANNUAL MEETING ..by Finish Reporter 20

FEATURES

THE FINISH LINE 7
PEOPLE YOU SHOULD KNOW—Strictly Candid 24
SNAPSHOTS OF THE EASTERN ENAMELERS 34

CERAMIC FINISH NEWS

INDUSTRY NEWS AND PERSONALS 27
NEWS FROM WASHINGTON 31
EASTERN ENAMELER'S CLUB FIRST WARTIME MEETING 33

MISCELLANEOUS

"JOE JUNK" HELPS WESTINGHOUSE QUALITY CONTROL PROGRAM 22
OHIO STATE UNIVERSITY ALUMNI DINNER 23
$4,000,000 SPENT TO PROMOTE CP GAS RANGES 38
INDUSTRIAL LITERATURE YOU SHOULD READ 39
ADVERTISERS' INDEX 47

finish

ceramic finishes on meta

First of the new Porcelain Enamel Institute advertisements that will appear in leading industrial publications during 1944.

. . . they are only part of the carefully prepared promotional campaign planned to create greater POSTWAR acceptance of Porcelain Enamel by industry, architecture, and retail fields.

DURABILITY
PORCELAIN ENAMEL
Fused on Metal

PORCELAIN ENAMEL INSTITUTE, Inc.

1010 Vermont Avenue, N. W.

WASHINGTON, 5, D. C.

THE Finish Line

Comment has often been made by industry members that the important products, companies or industries competing with porcelain enamel are, for the most part, represented by a few comparatively "close knit" operating units. The point is made that in some instances very few companies are involved. In many cases competition is governed by large, well-established interests.

This has sometimes been given as a reason for the apparent ease of establishing sales, educational and promotional programs, and of determining long-range policies for such competing products.

For any one who cares to make this point it is comparatively easy to illustrate by referring to aluminum with its "few" sources; other non-ferrous metals supplied by "big interests"; plastics, with some of the country's best known names behind them; and synthetic finishes, whose early competition with porcelain enamel (successful in no small degree) may be credited to the campaigns of a very few large producers.

The feeling of some would seem to be that because of these facts the enameling industry is "small" in comparison with the interests behind competing materials.

Who is interested?

There is unquestionably a vast diversification of interests associated in what we term the "porcelain enameling industry." First, there are those who might be said to have a "primary" interest — the jobbing plants, frit manufacturers, steel producers, raw material suppliers, and those companies manufacturing finished products made up for the most part of porcelain enamel and metal — kitchenware, sanitary ware, porcelain enameled signs, etc. Then we have a second group, such as appliance manufacturers, where only parts of the products are porcelain enameled.

All in all, scores of companies, both large and small, and many "industries" are represented. Interests are varied and in some instances products may be directly competitive.

Many organizations

All we need do to get some idea of the scope of the fields served by porcelain enamel is to list some of the many cooperative organizations involved. As a partial list we have: The Porcelain Enamel Institute, Pressed Metal Institute, Formed Metal Plumbingware Association, Architectural Porcelain Enameling Manufacturers, Association of Gas Appliance and Equipment Manufacturers, National Electric Manufacturers Association, Institute of Cooking and Heating Appliances, Enameled Utensil Manufacturers Council, Cast Iron Enamelware Manufacturers, National Electric Sign Association, Porcelain Enameled Water Tank Manufacturers Association, American Washer and Ironer Manufacturers' Association, etc.

Each of these organizations are set up to handle the specific problems related to its membership and in many instances are not *primarily* concerned with product finishes.

But — note this — with all of the diversified interests represented by these groups there is one interest that they all have or should have in common — they all use porcelain enamel as a finish for their respective products. Further — a great number of the companies represented by these groups have a big stake in plants and equipment for producing porcelain enameled products.

Power

Picture the force behind a program in which all of these organizations, both large and small, might participate cooperatively. The power behind such cooperation would be unquestionable — and we are not necessarily referring to financial backing. We refer to the possibility of drawing upon this "power" to as large a degree as feasible, through cooperation and the coordination of independent activities.

A program that would eventually lead these diversified groups, and the companies they represent, to "talking the same language" through their individual programs as they relate to porcelain enamel would furnish the "power" necessary to educate the buying public to a new appreciation of porcelain enamel — whether it be on a "victory model" range, a deep freeze, a water heater tank, or a four story building.

It's a big job, but the organization or individuals who could, through proper contacts and cooperative work, accomplish such coordination of effort over a reasonable period of time would render an incalculable service to our industry.

Dana Chase

Finer Things
Are Coming Out of the Ground

From the ore ranges, the coal fields, and the limestone beds are coming vast quantities of blended iron ore, coking coal, and purest limestone—the principal ingredients for making steel, the "master metal" in both peace and war.

Today this steel must all go into the production of the materiel of war, but tomorrow, when Victory is ours, finer things will come to us from out of the ground because of improvements now being made in steel.

Inland metallurgists are constantly testing and re-testing, melting and re-melting, adding one element and taking away another—always seeking for something better. Already they have contributed many new methods and new steels to production for war.

These, and the newer methods and Inland steels that are sure to come from continued intensive research, will help you meet the needs of America at peace.

INLAND STEEL COMPANY

38 South Dearborn Street, Chicago 3, Illinois

Milwaukee • Detroit • St. Paul • St. Louis • Kansas City • Cincinnati • New York

World's largest aircraft factory

uses porcelain enameled reflectors

plus a story on maintenance problems

By Frank Clayton • PLANT ENGINEER, CONSOLIDATED VULTEE AIRCRAFT CORP., FT. WORTH, TEXAS

AND *F. N. Straus* • PROJECT MECHANICAL ENGINEER, THE AUSTIN COMPANY, FT. WORTH

Exclusive feature finish

Light reflected from more than 25,000 porcelain enameled reflectors provides constant 24-hour illumination in the world's largest aircraft factory where Consolidated Vultee Aircraft Corporation has been turning out a steady stream of B-24 Liberator Bombers and C-87 Liberator Express transports for two years.

Designed and built by The Austin Company, pioneers in development of windowless "controlled-conditions" plants, this giant Fort Worth plant has walls and roof of "glass" insulated steel to provide adequate insulation, shatter resistance and acoustical and light reflecting properties.

Because of the size and type of construction of the Consolidated Vultee Ft. Worth plant, many unique problems of operation and maintenance are involved, some of which should be of interest to porcelain enamelers and lighting, air conditioning and maintenance engineers.

Some conception of the size of this plant may be gained in the following information: The administration building is 60 feet wide by 700 feet long, has two floors, with a total of 84,000 square feet of floor space. From the standpoint of lighting and air conditioning, ceiling heights are of interest. From the floor to the lighting fixtures in the assembly building is a distance of 40 feet, while from the floor to the roof it is 60 feet. Ten thousand tons of steel were used in construction of the parts plant alone, although many steel beams were replaced by reinforced concrete beams because of critical supplies.

The plant is of "blackout" construction, meaning that the plant can operate at full capacity with no possibility of light showing to an outside observer. This means that the plant was built not only without any windows, but every opening for ventilating, exhausting fumes, or any other purpose, had to be equipped with suitable light traps, and that all outside lighting on the plant had to be arranged for instantaneous blackout.

Largest industrial air conditioning system

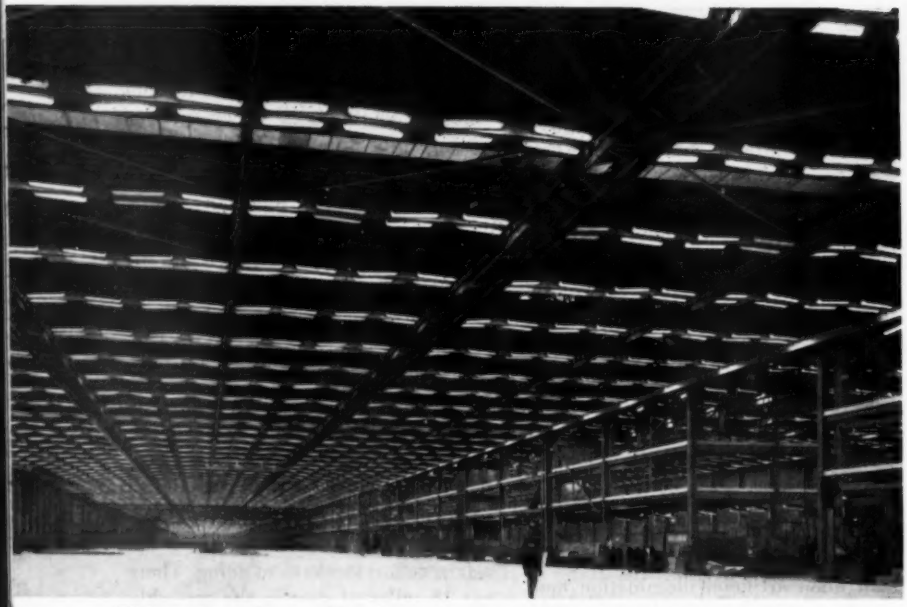
When a plant is built entirely without windows, it is obviously dependent upon artificial illumination and ventilation. We have built into this plant not only one of the largest fluorescent lighting systems ever installed, but also the largest industrial air conditioning system in the United States. The only larger air conditioning system to our knowledge, and one which is for comfort rather than industrial use, is that recently put into operation in the Pentagon Building, Washington, D. C., which because of its peculiarities can hardly be compared with a manufacturing plant. The capacity of the air conditioning system in this plant is such that if the same refrigerating machinery were used to make ice, we could produce twelve thousand tons of ice every day, exceeded only by the Pentagon Building system — by less than 1,000 tons. Several thousand horsepower of fans and pumps provide the cooling and circulate the air throughout the plant, not only for the efficiency of the employees but to maintain conditions under which the large structures comprising the Liberator bomber and transport airplanes can be made accurately enough to fit together smoothly on the assembly line.

Water circulating through the air conditioning system daily is enough to supply the average daily water consumption of Dallas and Fort Worth. Each of the air conditioning fan "platforms" in the assembly building alone is as large as a six-room house. Each fan has a circulating capacity of 55,000 cubic feet of air per minute. It takes 14,000 gallons of water per minute to keep the refrigeration mechanism going. There are 18 miles of duct in the assembly building; and 15 miles of duct in the parts plant.

Lighting problems answered

In this plant, which was designed from floor to ceiling with a view to lighting efficiency, the activity is distributed over an extremely wide range of working levels, with some men and women occupied with tasks on the underside of wings and fuselages as well as on top of assembly planes at elevations as much as 20 feet above the floor. There is a great deal of work on vertical planes which necessitates the operators looking toward the light sources. For this reason diffused light sources of relatively *large area* and *low brightness* have been used to provide an average

Lighting method in the administration area provided for U.S. Army Engineers.



This section of assembly plant pictures number of reflectors used.

This shows spacing of fluorescent fixtures used throughout "parts plant."

footcandle level of 36 and vertical illumination of 20 footcandles, without glare.

In addition to the careful attention given to the engineering of the light sources, other details of the plant were designed to take every advantage of the light thus provided.

In a plant where the average monthly operating and maintenance cost (for lighting only) is approximately $53,000, it is obvious that no small details related to lighting efficiency may be ignored. The cost figure given includes the current necessary to light approximately three million square feet, the salaries of 20 full-time relamping employees, and the cost of materials, including changing aproximately 12,000 of the 60,000 individual lamps used in the plant, monthly.

One example of this "assistance" to the light provided is the white cement floor, which provides reflected light to aid employees working on the underside of wings and fuselages.

Over 25,000 porcelain enameled reflectors

There are more than 21,500 two-lamp rectified fluorescent units with porcelain enameled reflectors, as well as over 5,000 other fluorescent fixtures in the entire plant.

The type RF porcelain enameled reflectors were *furnished by* the General Electric Company (General Electric does not manufacture fixtures). The type F units in the Parts Plant and present Engineering Building were furnished by the Sylvania Electric Products Company. The troffers in the Office Building were furnished by the Beckett Electric Company of Dallas.

Service and maintenance problems

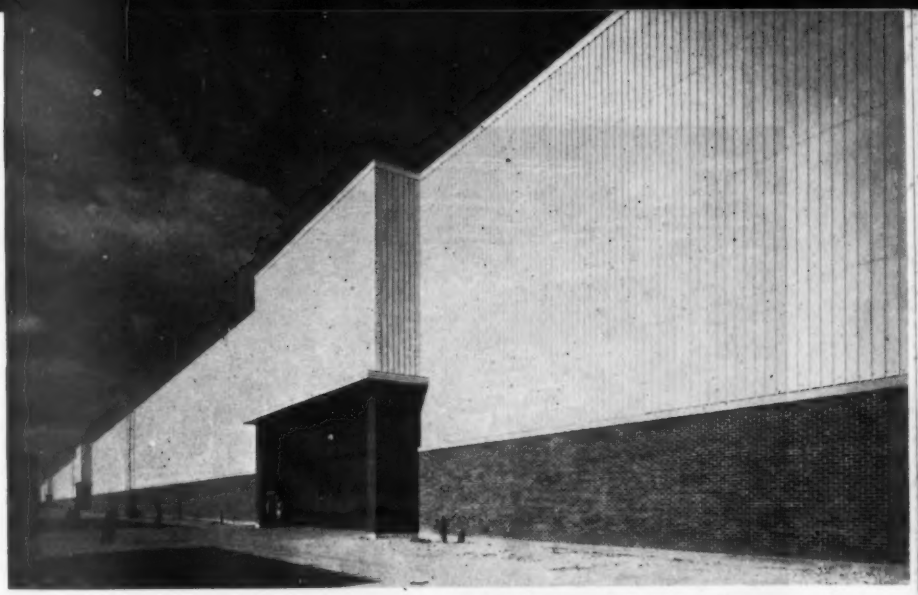
As can be imagined, the problem of maintenance in connection with nearly 60,000 fluorescent lights, most of which are mounted 40 feet above the floor, at locations not available through the use of ladders, is a complicated one. Problems of maintenance were presented which were never before experienced by the personnel operating the plant. Since the entire ceiling of the manufacturing building is covered by monorail

cranes for handling the airplane parts and materials, it was logical these should be utilized in servicing and maintaining the lighting system. Accordingly, a special "outrigger" structure which belts directly to one of the monorail crane cabs was designed and built from which a crew of maintenance electricians can reach the forty-foot high lighting fixtures.

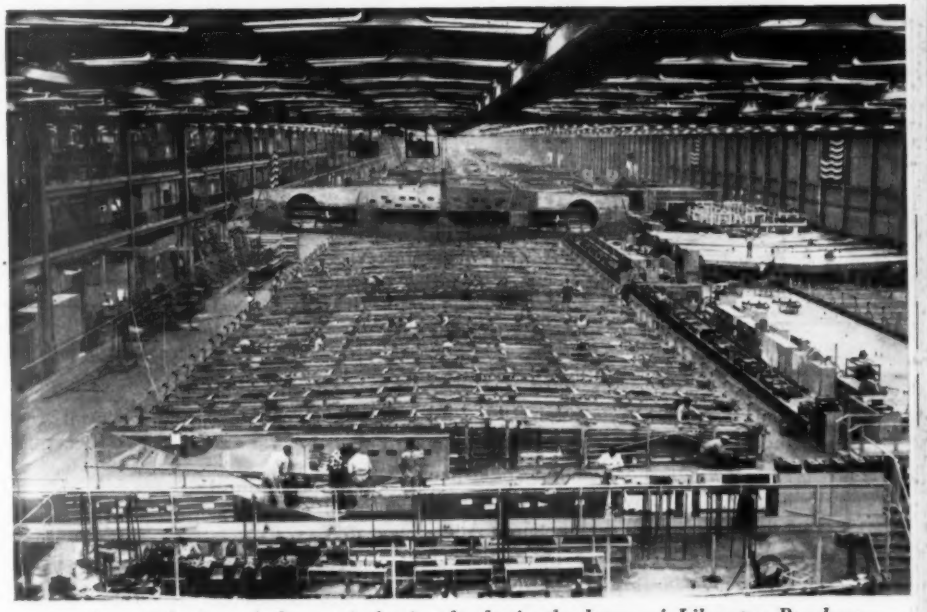
The largest part of the lamp maintenance work is carried out from the inter-connecting monorail system by means of this special platform which provides accommodations for five men, two on scaffolding at each side, to service the parallel rows of fixtures, and one man in the cab to keep the others supplied with new tubes, clean rags, cleaning compound, etc., and to operate the crane. Two men to bring supplies from the store room and take away burnt out lamps, and one man on the cat-walk to turn the power on and off, complete an eight-man crew. There is a full lamping crew on duty only on the third shift, when use of the monorail for production purposes is lightest. This crew by means of special training and organization, has been able to change 500 lamps and clean as many as 250 two-lamp fixtures per night, working on the short 6½ hour shift between midnight and morning when operations in the plant are at a minimum. By carefully planning and routing the work, all of the lighting fixtures in the plant are thus cleaned and relamped in a length of time equal to the average lamp life. Emergency crews only are used on the first and second shifts, except on Sundays, when larger crews catch up on miscellaneous and non-uniform lighting installations.

These crews rely on the monorail system in handling all work at the 40-foot level, where fixtures are suspended from angle irons welded to the trusses. They reach fixtures beneath the mezzanines and on mezzanines not accessible from the monorail system by the use of ladders. Other installations are reached from a truck-mounted "Crow's Nest" ladder, or a power operated telescoping platform.

The method followed in the 200-

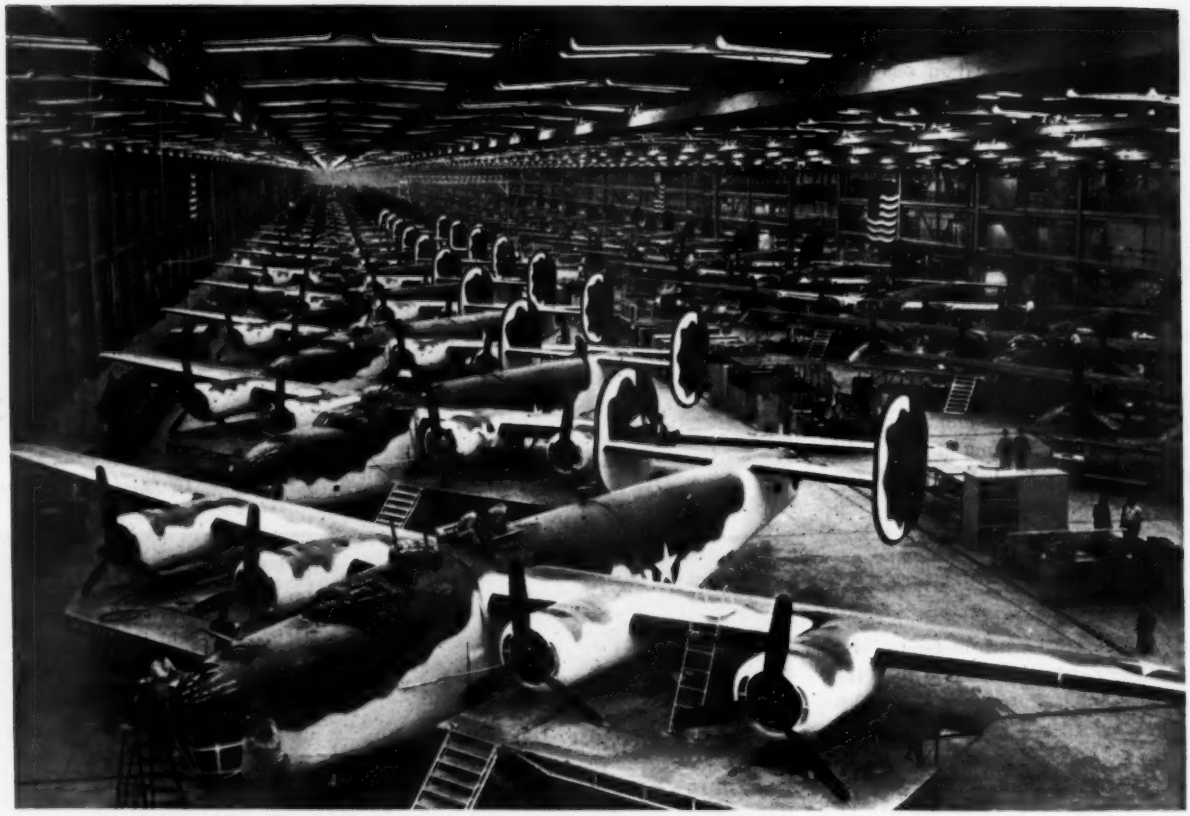


View of parts plant showing vertical lift doors and "blackout" construction.



A partial view of the vertical wing bucks in the home of Liberator Bombers.

Part of the horizontal wing lines where wing center sections are placed.



This view shows a section of the world's longest double aircraft assembly line. In the foreground are modified Liberator bombers. To the rear of this line are C-87 Liberator express transports. The second line is composed entirely of B-24 Liberator bombers in final assembly stages.

foot assembly bay, which is several thousand feet long, is typical of the system adopted for all the high-span areas. This bay has been divided arbitrarily into 100-foot strips. Alternate strips (100 feet by 200 feet) are relamped throughout the length of the building (odd numbered sections), then the even numbered sections.

When the complete cleaning and relamping operation has been completed, approximately 4,000 hours have elapsed. This exceeds the allotted life of 3,000 hours for each lamp, but experience has shown that an actual average service life of 4,000 hours is being obtained. This skip-and-clean system has made it possible to provide a balanced level of illumination, with alternate sections of new lamps which are midway in their useful efficient life. It has been found that the only thing to do with replaced lamps is to throw them away, since the man-hours consumed in attempts to salvage them were out of all proportion to the material recovered.

Cleaning method for porcelain enamel

Plant Engineering uses three methods for cleaning porcelain enamel reflectors. Reflectors in "clean" areas, such as offices, are wiped with a damp cloth until such time as visual inspection indicates a more thorough cleaning is required.

In areas where spilled water or dripping water might fall on machines, employees or material, the reflectors first are wiped with a dry cloth to remove surface dirt. Then, a paste cleaner, "Temp", on a damp cloth is rubbed lightly over the surface. A damp cloth is used to remove the paste, leaving the reflector clean.

Where dripping water will cause no harm to material or employees, water and a soap, "Neutraloid," are used on the porcelain reflectors, which then are rinsed with a damp cloth.

The porcelain enamel reflectors are cleaned when the lamps in them are changed. (Approximately 4,000 hours) None of the porcelain enamel fixtures in the Fort Worth plant have shown any sign of deterioration during the almost two years the factory has been in operation.

Engineering opinion, based on experience

Our experience with both rectified fluorescent lighting used in manufacturing areas, and the flush troffer lighting used in office areas is that these are the best systems for their respective uses in existence today. In both cases, porcelain enamel reflectors are utilized in the form of individual units in the factory and as continuous troughs with louvres, also of porcelain enameled steel, in the offices. When the permanence of finish and cost of maintenance are considered, it is our opinion that porcelain enamel on steel is the best reflector material for all types of fluorescent lights.

"Jinxed" porcelain enameled turf club adopted by navy

$2,000,000 porcelain project gets a job for war in the Pacific

By Elsa Gidlow • WEST COAST CORRESPONDENT

Exclusive feature finish

The horses that never ran on the tracks of the beautiful Golden Gate Turf Club at Albany on San Francisco Bay might shy at the martial activity that is starting up there now as the site is being converted to a Landing Force Equipment Depot for the U. S. Navy, but everyone connected with the porcelain enameling industry is very happy. They are happy, not only because this immense porcelain structure no longer will be a ghost; but despite — or even because of — the ill luck that has dogged it, the handsome buildings can prove plenty for the industry.

Unlike the Grass Valley porcelain enameled hospital*, the Golden Gate Turf Club was fully completed and ready for its career in December of 1940.

A perfect location

The Albany racetrack is situated between Richmond and Berkeley on the south shore of the Bay, on the East Bay approach to the San Francisco-Oakland Bay Bridge. This strategic location near two metropolitan cities, San Francisco and Oakland, with many smaller cities within easy reach, made it seem a natural for racetrack patronage and California tourist trade interest. The ambitious project of the Golden Gate Turf Club was approached with confidence, and the intention of making it the "handsomest racetrack ever built" was achieved. The three-tiered grandstand and circular paddock were graded in all sections to provide a perfect view of the track to every spectator.

The rear wall of the grandstand also is the front of the turf club building. It is 820 feet long by 40 feet high, finished entirely with 18 gauge porcelain enameled panels. Apart from a few exceptional sizes due to architectural demands, the panels are 30″ x 60″. The finish is matte. The panels were attached to wooden studs with small clips that had been welded to their backs, and were then sealed with mastic. One hundred and twenty-five tons of the sheets were used, for the area of 125,000 square feet. If anyone knows of a larger single installation of porcelain enamel, let him speak up.

About the center of the 820 foot wall a semi-circular attachment, in rotunda style, is built out to house the turf club building proper and what were intended to be the "high-price" ticket offices. At the southerly end of the structure, a hundred foot projecting wing housed the administration building. The betting windows ran in rows, up to as many as 100 in a row, with 400 in all, each window identified by a porcelain enameled sign with number. Porcelain enamel was used also in the public and private toilet rooms. The grandstand and clubhouse section was planned for a 12,900 capacity, with track capacity of 90,000. Parking facility was provided for 12,000 cars and 100 buses.

The porcelain enamel field is a soft blue, with trims in gold. Two gold bands run on the blue background several feet below the edge of the grandstand roof. Railings are blue with gold bands.

Functional architecture

Valued at $2,000,000 the project was considered by architectural experts to be "the most perfect example of modern functional racetrack architecture in the world." The Porcelain Enamel Institute allowed it the distinction of being "probably the largest job which has ever been constructed with porcelain enameled panels." The total porcelain enameled area of the buildings is just about twice as great a surface as the Grass Valley Hospital (referred to in March *finish* as one of the largest porcelain enameled construction jobs ever to be undertaken).

The climatic conditions to be withstood by the Golden Gate Turf Club are almost the exact opposite of those faced by the Hospital. Instead of a dry, bright, sun-scorched, dusty inland valley climate, the racetrack is exposed to the corrosive salt air of San Francisco Bay. This region is known for its destructive effects on all ordinary surfaces. The strong salt air, the moist winds and frequent fogs render most finishes shabby in a few months. Painted surfaces simply don't stand up at all. Porcelain enamel was chosen, therefore, as a finish that would be most practicable and durable, economical because of low maintenance cost, and easy to keep clean.

No one anticipated that it was also going to weather three years of disuse and neglect; but that is what it has done. And everyone who has looked at it recently, including the writer, announces it has come through with very nice bright colors, thank you!

A grand opening — jinxed

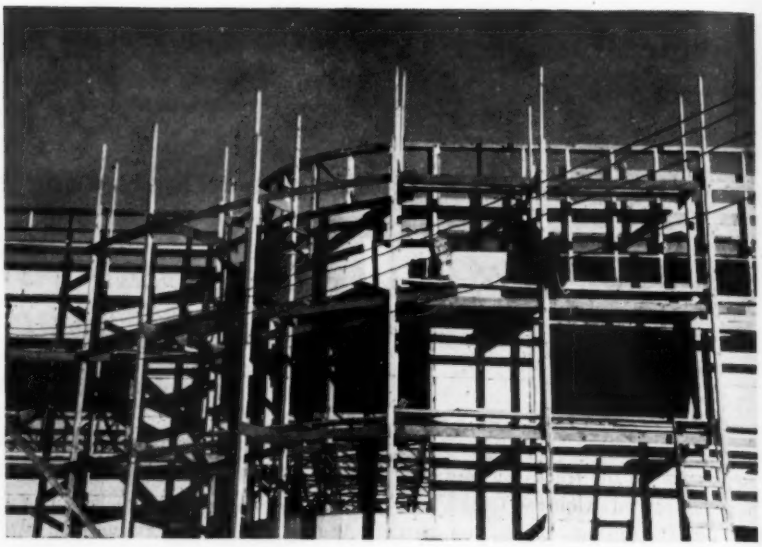
The track was set for a grand official opening on December 28, 1940. Everything was prepared to make it

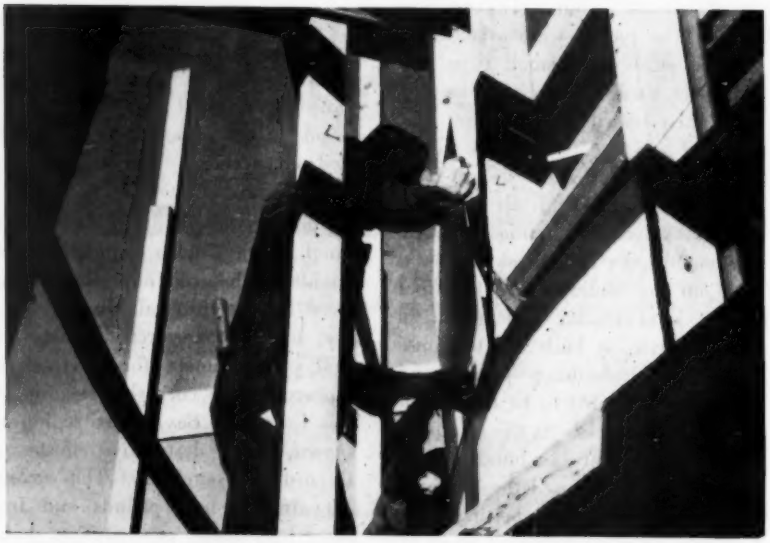
Top: Applying "soft blue" porcelain enameled panels to the exterior of the $2,000,000 Albany racetrack building as originally constructed.

Center: Close-up of workmen applying panels to the exterior wall. Mastic was applied to the studs and to the top portion of the lower sheet at the lap, completely sealing the joints.

Bottom: After the porcelain enameled panels were all in place, excess mastic was removed by washing with gasoline and then with soap and water.

PHOTOS: COLUMBIA STEEL CO.

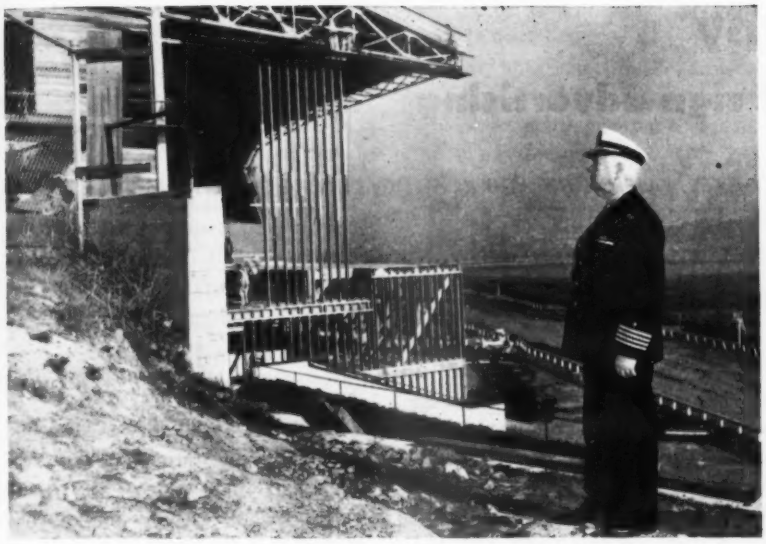




a gala affair. But a succession of storms even *more* unusual than California's *"most unusual"* weather — generally pretty good in December — prevented the scheduled opening. High winds and torrents of rain continued through January and flooded the tracks, making racing impossible. Finally in February the official opening was held, in an atmosphere of anti-climax, and the jinx was well under way. A succession of setbacks brought the ill-fated turf club up to December 7, 1941, with its blackouts and prohibition on large gatherings. And so for three years the fine, bright structure in blue and gold, idle, empty, and ghostlike despite its continuing new appearance, has been a two-million dollar curiosity to the tens of thousands of motorists driving along the South Shore Highway which the turf club overlooks. No one knew when, if ever, it would be put to use. The only purpose it was serving was to prove to skeptics that architecturally porcelain enamel could take a beating and keep its face. But it was rather a melancholy exhibit even if it was proving everything the exponents of the finish had been repeating for years.

Joins the navy

Then, exactly three years after the debut that was also a finale, our porcelain enameled turf club joined the Navy and achieved a purpose in life. That purpose is involved with inva-



Top: Capt. Horace C. Laird, USN (Ret) examining the conversion of the grandstand at the Albany racetrack to offices and quarters for naval personnel.

Center: Amphibian tractors damaged in the invasion of Tarawa and returned for repair to the Naval Landing Force Equipment Depot at Albany.

Bottom: A small landing barge is being placed in the infield at the Albany track where naval personnel are being trained into repair units.

OFFICIAL NAVY PHOTOGRAPHS.

sion action in the South Pacific. Obviously not much of the detail can be told, but we will tell all the Navy will reveal of what the Landing Force Equipment Depot, now making the Albany track hum, is up to.

The turf club and grand stand edifice forms the heart of the great Navy project now under construction at Albany. In February, carpenters and other workmen began to convert the structure to barracks, shops and quarters for men and equipment for a big job with landing craft. The undertaking is headed by Capt. Horace C. Laird, U.S.N., retired, who was an Annapolis classmate of Admiral Chester W. Nimitz, commander-in-chief of the Pacific Fleet. Capt. Laird is commander of the Naval Landing Force Equipment Depot at Norfolk, Va., from which thousands of amphibian craft have been dispatched overseas.

Starting with 200 men and 16 officers from Norfolk, Capt. Laird is setting up at Albany another of these depots on the ghost racetrack, a repair and dispatching center for the Pacific which will be the largest of three such depots in the country. The completed unit will have 1500 men, another 1500 trainees destined to become expert crews prepared to repair craft disabled on battle fronts. The Navy says the Albany Depot will store, issue, service and repair all small landing craft for use in the Pa-

to Page 46 →

The how and why
of sign advertising

By Ken M. Davee • DAVEE, KOEHNLEIN AND KEATING, CHICAGO, ILLINOIS

PART III • Planning your sign program

The point at which to begin in the development of a new or an improved sign campaign is with a survey of your needs. A common sense procedure far less extensive than the name "survey" may imply will serve your purpose in most cases. A careful investigation should be made, however, to check such questions as the following:

1. What type of sign is necessary to do the job you want done?
2. What competitive signs are already up at or near the point where you will want signs, and what can you do to make yours distinctive?
3. What has been the practice of competitors in furnishing signs to dealers, if yours is a dealer sign program?
4. What is the attitude of dealers toward giving sign display to your product; how much of a selling job will be necessary to sell dealers on using your signs?
5. What is the condition of signs you or other advertisers have put up in years past?

A procedure no more complicated than getting in your car and calling at a number of typical locations where you will want to erect signs will give you much valuable information along the lines these questions suggest. This will guide you in the selection of materials.

How advance study prevents errors

An illustration taken from a slightly different situation will serve to point to the practicability of this approach. A cornflake manufacturer decided that an oversize package would gain for his product certain display advantages in grocery stores. Accordingly, the larger package was ordered made up in small quantities for a trial. When these packages were ready, a salesman took some of them to a store window to see how effectively they could be displayed. It was obvious immediately that they were too tall to fit on the grocer's shelves. Other stores were tried and most of them had shelves too close together to accommodate the larger package.

The idea had to be abandoned and considerable development money was wasted because someone failed to make a casual check of the cereal shelves in the typical grocery store. A sign campaign may suffer from similar costly errors if it isn't based on an accurate knowledge of the space in which the sign will usually be hung and the attitude of those whose cooperation is needed to get the sign installed.

Two large-scale sign users — the Goodyear Tire and Rubber Company and the International Harvester Company — made rather extensive surveys to determine their needs when they decided to develop improved sign campaigns. While some sign programs may not justify investigations as comprehensive as these, the same common sense procedures may be applied on a limited scale.

Goodyear's study of identification

To begin with, Goodyear analyzed very carefully the meaning of good identification. The basic question was: What signs are most successful in establishing quick, easy identification, tied in with the advertising purchased in other media?

Goodyear began this analysis by assembling illustrations of the identification signs used by a great many companies, so that they could be studied and compared.

You can duplicate this first step very easily. Such illustrations may be obtained from advertisements in current general magazines and trade papers, from sales promotional material, and from inexpensive snapshots you can take yourself. The illustrations should be grouped according to the particular type of job to be done and should then be pasted in a scrapbook for analytical comparison. Goodyear's sign specialist keeps such a book in his desk.

It is amazing that many advertising managers, though they are doing an excellent job themselves and through their agencies on comparative studies of advertising in other media, are neglecting to follow equally thorough procedures in planning sign campaigns. There is much to be learned, for example, from an analytical study of magazine advertising that will develop basic principles to be applied to your own magazine ads. The campaign of each company can be studied in the light of the job it sets out to accomplish.

Very often the printed advertising of a company in an entirely different field will suggest a basic principle of selling appeal, layout, copy, or continuity of advertising impression which can be successfully utilized in your own field with appropriate revision to suit your specific needs. This is not a copying procedure since it is impractical to adopt in detail an idea that is clicking for someone else. But basic principles are de-

veloped only through long experience — your own and that of others; and there is plenty of useful information to be gleaned from careful analysis of successful advertising in all its forms along the lines suggested here.

Signs are a less complicated medium

Furthermore, the job of analyzing good identification in advertising signs, as Goodyear did it, is much simpler and easier than the same sort of study in other media. Copy is, of course, much shorter and much less of a problem. Sign layout for purposes of identification and selling appeal is less complicated than in most printed advertisements. The eye appeal and selling impression of the signs you study can be much more readily and accurately estimated than would be possible in a comprehensive study of printed ads or radio commercials. Obviously, then, this first step in the Goodyear method, which is also used by a number of other leaders in sign advertising, is a comparatively easy procedure and certainly a practical one.

Goodyear's collection and comparison of sign pictures was followed up by a fieldtrip to observe identification signs on outlets. The investigators drove up to the dealers' stores or stations, approaching them just as a customer would.

Field study checks customer reactions

There is a definite technique to be followed for this type of test observation. In approaching a service station, for example, it is best to drive at the speed of the average motorist. Also, you can get the most unbiased impression of the identification value of signs if you are not familiar with the particular territory being observed.

Just keep alert for the first station identification you see and recognize, with the same reaction requirements as would apply in the case of the average customer — in other words, seeing, recognizing, reducing speed and stopping to buy. Note whether you are far enough away from the drive to permit conveniently the reduction of speed necessary to allow you to turn in or stop. The same essential technique applies to the signs for any other merchandising field. It is simple enough, but it is a technique, since you must be sure to avoid any undue mental "set" that would make your reactions to the signs vary markedly from those of a typical motorist.

Once you have arrived at the store, service station or other outlet, note the placement of signs, the number of signs, which ones are favored with the best locations, and how well the various sign materials are standing up. These points, together with your scrapbook of sign illustrations, will develop guiding principles for your own sign campaign.

The Goodyear investigation included the use of motion pictures made while approaching various outlets. This gave them a realistic picture of what a customer sees while approaching their dealers. Such pictures can be taken back to the office and studied in detail.

The result of this and similar studies that Goodyear made are well known. On the basis of their findings, Goodyear adopted the distinctive diamond-shaped sign to get away from the standard rectangles used by so many sign advertisers in the automotive field.

Recognition value of signs

They concluded that many identification signs were *recognized* rather than read. They reasoned, therefore, that a distinctive shape added to recognition value. They changed the colors from white on blue to yellow on a deep blue in order to add to both visibility and the quality appearance of their signs.

They also adopted the policy of fitting the shape and size of the sign to the identification job to be done rather than to the most convenient mounting space that happened to be available on the dealer's building. It developed that the long sign with the vertical lettering had been the most popular type of sign simply because every service station and garage had a post, pilaster or flat area upon which a sign could be fitted. This shape of sign, however, has the disadvantage of being difficult to read. The lettering reading from top to bottom is unnatural and more difficult to read than horizontal lettering. Its position, mounted flat against the building and usually so low that a car in front of it will hide it, offers poor visibility. The salesmen who requested and placed such signs were probably guided by the convenience of the space available, rather than by strict attention to obtaining the best possible identification for the station.

How International Harvestor planned a sign program

The procedure employed by the International Harvester Company is somewhat different. Some time ago

"Sign advertising is so important an element in some fields . . . that the building design and the sign are integrated."

" . . . getting in your car and calling at a number of typical locations where you will want to erect signs will give you much valuable information . . . "

they considered a store modernization program for their outlets. In order to get an idea of their needs in this respect, they employed a cameraman to call on every outlet in one entire sales territory and photograph every store, both inside and out. These photographs were then mounted in a scrapbook where the committee in charge of modernization could study them.

The exterior photographs in many cases can cover not only the particular front in which you are interested, but the adjoining stores as well. This additional frontage will furnish some idea of the competition for attention an identification sign will have at that location.

Most of the planning steps described so far are aimed at the selection of an effective sign from the standpoint of selling the customer. At the same time, you will learn a good deal about the signs that are actually erected on dealers' premises and given preferred positions.

Get dealers' opinions

The next step, if you plan to sell your signs to dealers, whether at cost or less, is to talk to representative dealers themselves and get their ideas about signs. After all, the dealer can make or break your distribution program, and that applies to your sign advertising as well as it does to other phases of your sales promotion. Dealers' opinions would have saved a great many mistakes in certain sign programs and have accounted for much of the success of certain others.

In order to get unbiased opinions, you may not want to tell the dealers you talk with who you are or exactly what you have in mind. Find out what their experience with signs has been. Don't expect them to be ready and willing to buy your signs without a sales presentation of the reasons why they should buy them. Sold as most dealers are on the need for sign advertising, they still must be shown what your signs will mean to them.

In this connection, remember that you are in competition with all other companies whose products the dealer handles, so far as sign erection and maintenance is concerned.

Next, extend your investigation to take in men who direct sign advertising programs for companies facing problems similar to yours but in fields not directly competitive. They may have experience that will be of value to you. In most cases you'll find them glad to share it.

Don't overlook your own salesmen

Don't forget your own sales organization, the men who come in contact daily with the dealers and distributors to whom your sign program must be sold. They will have helpful ideas, too. If you have a field man who is doing an especially good job with dealer promotion, pay particular heed to his suggestions.

The representatives of the sign companies themselves comprise another excellent source of information and ideas. These men are in daily contact with the leading sign buyers. They are familiar with literally dozens of sign programs, having assisted with their development through the years. Their experience enables them to indicate how your sign advertising can be made most effective in terms of long-run cost and selling power. They will be glad to serve you.

Your planning of sign advertising, then, as outlined in the preceding pages, is a careful investigation of the market for your signs. As a progressive manager of sales, sales promotion, advertising, or all three combined, you value the study of your product's market. The same essentials apply equally well to the market for the signs that advertise the product and identify your dealers.

The next element of planning the sign program is your administrative organization. Who should administer a sign campaign?

Importance of departmental cooperation

Because signs are an advertising medium, it seems reasonable that the

advertising department should have charge of the sign program. Almost universally, the advertising department creates the design and copy employed in sign advertising. Other departments, several of them in the larger organizations, are also concerned with sign advertising. The sales department figures in the distribution of signs, both as to the arrangement with the dealers and wholesale distributors, and as to the basis under which they will be sold, leased or allocated to dealers.

In organizations having their own architectural departments, the handling of signs is frequently left to them, or they work hand in hand with the advertising department. Sign advertising is so important an element in some fields — those marketing through service stations and chain stores, for example — that the building design and the sign are integrated.

Another department concerned with the sign program in larger organizations is the engineering department. The railroads, for example, commonly send all kinds of signs to the engineering laboratory for durability tests. For example, before placing orders for porcelain enameled signs, the Pennsylvania Road submits samples to their laboratory at Altoona where they must pass the most rigorous tests before they are approved for general use.

Western Union also calls on the engineering department to work out specifications. The oil companies similarly employ their engineering departments to work out specifications for both the signs and their standards. The companies manufacturing appliances and electrical equipment submit the electrical apparatus on their signs to their own engineers for specification and approval of samples.

Finally, in most organizations, the purchasing department places the orders for signs. In some cases, advertising supplies are purchased in such quantities that the advertising department has its own purchasing agent.

Assigning a full-time director to sign advertising

The larger users of sign advertising, however, have one man who either performs all the functions essential to the execution of a sign advertising campaign or coordinates the efforts of the other departments. This is an excellent arrangement wherever possible. The advertising manager handles this job in companies where a large part of the total advertising appropriation is allocated to signs. In others, it is the assistant advertising manager.

In many companies the assistant advertising manager is virtually the advertising manager in charge of all dealer relations — cooperative advertising, advertising signs, and interior display. Research investigators found this to be the case with automobile accessory manufacturers, appliance manufacturers, and building supply companies. In still other companies engaged in large sign programs, one man spends his entire time directing sign advertising. This is the case at Goodyear, the leading chain store organizations, and with manufacturers selling through exclusive agencies such as those in the shoe field.

The foregoing description of the number of departments concerned with the sign campaign indicates the

to Page 39 →

"Don't expect them to be ready and willing to buy your signs without a sales presentation of the reasons why they should buy them."

A. G. A. E. M. annual meeting — —

including a digest of general session speeches

ONE hundred and seventy-five manufacturer members of the Association of Gas Appliance and Equipment Manufacturers met at the Palmer House in Chicago on May 8 and 9 for the Association's annual meeting. The two days were packed full of activity starting with early morning breakfast meetings of various committees, and following through with a heavy program of industry business.

First general session

Monday morning's meeting was opened by Col. Willard F. Rockwell, AGAEM president, followed by a report of treasurer John Van Norden, and the report of the general nominating committee, headed by Frank J. Hoenigmann.

H. Leigh Whitelaw, Managing Dir.

The election of officers resulted in the following selections for the year 1944-45:

President — Lyle C. Harvey, president, The Bryant Heater Company, Cleveland, Ohio.

1st Vice President — D. P. O'Keefe, president, O'Keefe & Merritt Company, Los Angeles, California.

2nd Vice President—John A. Robertshaw, president, Robertshaw Thermostat Company, Youngwood, Pennsylvania.

Treasurer — John Van Norden, secretary and manager sales promotion, American Meter Company, New York, New York.

Principal addresses for Monday's session were the following: "President's Address," by Col. Willard F. Rockwell, president, Association of Gas Appliance & Equipment Manufacturers and president of Pittsburgh Equitable Meter Company; "What The Future Holds For The Gas Industry," by Ernest R. Acker, president, American Gas Association and president of Central Hudson Gas & Electric Corporation; "Teamwork," by Major Alexander Forward, managing director, American Gas Association; "Domestic Gas Research," by Everett J. Boothby, chairman, AGA Domestic Gas Research Committee and vice president and general manager of Washington Gas Light Company; "The Coordinated Kitchen," by C. V. Sorenson, director, AGA Coordinated Gas Kitchen Program, Northern Indiana Public Service Company.

Second general session

Tuesday's program included the following talks: "Post-War Planning," by Frank H. Adams, chairman, Post-War Planning Committee, and vice president and general manager of Surface Combustion; "Without Profit We Perish," by Henry H. Morse, chairman, Industry Publicity Committee, and vice president, Florence Stove Company; and "The Future of the Liquefied Petroleum Gas Industry," by Frank B. Boice, director, Liquefied Petroleum Gas Association, and assistant manager, Technical Products Dept., Shell Oil Company.

Divisional meetings

Both Monday and Tuesday afternoon were devoted to business sessions of the various association divisions, including Direct Heating Equipment Division; Domestic Gas Range Division; Gas Refrigerator Division; Gas Valve Division; Gas Water Heater Division; Hotel, Restaurant & Commercial Gas Equipment Division; House Heating and Air Conditioning Equipment Division; Industrial Gas Equipment Division; Meter & Regulator Division; and Thermostatic Control and Accessories Division.

Lyle C. Harvey, President.

Each major product represented in the association has its division for consideration of its individual problems, and is headed by an experienced chairman.

In addition to the meetings of these divisions other meetings included: CP Sales Management Committee; Advisory Council; Policy Committee; and P.C.G.A. Manufacturers Section.

The complete activity of the association is coordinated by the secretary and managing director, H. Leigh Whitelaw.

Digest of general session speeches

Ernest R. Acker, president, American Gas Association

The combined efforts of both associations are being directed toward committing the industry to a constructive program of improvement and simplification in the appliance field. This is being accomplished by the numerous studies and surveys being conducted by the respective post-war planning committees. Such long range research and planning, of course, supplements that which can reasonably be expected to form the basis for product development in sufficient time to meet the immediate post-war situation. The experience gained in the development of many new devices by the laboratories for the control, regulation and indication of various gases for the Army Air Forces, Bureau of Ordnance and the Navy, will be of material value in the

D. P. O'Keefe, 1st V.P.

solution of numerous industry problems which will no doubt develop in the near future.

Major Alexander Forward, managing director, American Gas Association

It is significant that more gas companies will merchandise appliances after the war than ever before. We may have Federal Government restrictions, but we will have no Federal Government competition. The race will be hard and it will be swift, but the industry is ready to meet the challenge.

E. J. Boothby, vice president and general manager, Washington Gas Light Company

The purpose of the Domestic Gas Research Committee has been to provide facts and figures to facilitate the design of burners to avoid the numerous difficulties experienced from flash-back, flame lifting, slow port-to-port ignition and noise of extinction, all troublesome to the gas user and to us. The effect of variations of shape and mass of burners, burner inputs, grate construction and design of aeration bowls has been thoroughly analyzed and summarized to serve, we hope, as a tool for your engineers and designers to use in the refinement of top burner cooking performance of post-war ranges. It is our aim to produce the necessary fundamental technical knowledge to facilitate the improvement of the most important of cooking operations — baking and broiling.

Present study is being conducted on automatic ignition of all burners on a range from a single pilot by means of flash tubes. It has been demonstrated that this type of ignition is entirely feasible for natural gas and mixed gas as well as manufactured gas.

Contemporary automatic storage gas water heaters are now engineered to provide thermal efficiencies and standby losses approaching optimum values consistent with satisfactory flue conditions.

Research on burners utilizing all air for combustion as primary air does not as yet involve premixing, but it does encompass a determination of the limits of burner design and gas pressures with different types of gases under which it will be possible to obtain 100% primary air injection and also a determination of flame characteristics prevailing with combustion of different types of gases when all air is injected as primary air. There is every indication that 100% primary air burners possess many advantages over Bunsen burners in addition to higher efficiencies. The advantages of 100% air burners are not applicable to range burners alone, but are substantially as great or greater for use with water heaters, refrigerators, space and central heating appliances.

C. V. Sorenson, Northern Indiana Public Service Company

There has never been a time in the history of our business, and that includes the gas industry and the manufacturing industry, when we have been at what I should call such a psychologically ripe time to cash in on the possibilities of a coordinated movement. The service that gas can render the public, and the interpretation that your appliances can put on gas service to the public, fill an exact need of the type that the general public is going to demand. This thing of a new day, of better living, of improved efficiencies, more leisure time on the part of the public — those are not idle words. Because the public is going to be willing to accept — I might say demand — this improved type of service, we have an opportunity now to hope that we can really cash in on the results of the movement that is now being gotten under way. We plan a type of cooperation between manufacturers and gas companies that is designed from the start to give us the greatest benefit.

John A. Robertshaw, 2nd V.P.

Frank B. Boice, director, Liquefied Petroleum Gas Association.

The future of the Liquefied Petroleum Gas Industry provides great and profitable opportunities. The first sales of liquefied petroleum gas for domestic use in any volume were made to families who resided on the fringes of cities where piped gas did not reach, and in small gasless towns. From these areas the business was

to Page 38 →

"Joe Junk" helps Westinghouse quality control program

A suggestion for other manufacturers

WHEN workers suddenly stop making peacetime products they had been building for years and start manufacturing war equipment, the problem of maintaining high quality workmanship arises. That problem has been solved at the Mansfield, Ohio, plant of the Westinghouse Electric and Manufacturing Company by a never ending campaign to improve the quality of all work — a campaign which during the first four months produced an overall improvement of 218 per cent in quality work.

The program is designed to instruct every employee on the importance of precision work. It is headed by a committee of six which includes the managers of the Quality Control Department and works as a sub-committee of the joint Labor Management War Production Council.

Each department has its own committee comprised of the foreman, union steward, and inspector, and it is the duty of each departmental committee to conduct monthly meetings with its entire group to keep them conscious of "Quality Improvement."

A feature of the campaign is a contest for Westinghouse men and women now serving in the armed forces. A $25.00 war bond is awarded monthly to the person who writes the best letter on "When Quality Counts," pointing out from personal experience why it is vital for war equipment to be quality equipment. All winning letters are published in the plant's paper, "The War Production News."

Actual results of the campaign are determined on a competitive basis, and each department's monthly score is established by the ratio of its defective workmanship to net productive labor, for a six month period. Each month as scores are figured, the seventh preceding month is dropped and the last month worked is added.

Display boards, erected in a prominent place in each department, are used by the departmental committees to mount defective parts, each accompanied by a card describing the defect, giving the value of the part lost and the method to be followed to eliminate future rejects. These boards are also used for subject talks at the monthly departmental meetings.

In order to further stimulate interest, the department showing the greatest improvement over the preceding months is awarded a large blue ribbon to be displayed on the bulletin board or in some prominent place, and the employees of that department are given small blue ribbons to wear

to Page 46 →

Results in quality control are pointed out by A. H. Frankhauser, campaign director, to Ralph F. Bisbee, manager of Quality Control Department.

Ohio State University alumni dinner

"flash-back" to ACS convention

THE alumni dinners of the various universities offering ceramic courses are always an interesting part of the Annual Ceramic Meetings. As it was obviously a physical impossibility for your editor to attend all of these functions, held simultaneously during the A.C.S. annual meeting, the Ohio State dinner was selected this year. It seemed logical to start with the "home state" in reporting these social events.

The banquet hall in the Roosevelt Hotel, Pittsburgh, was filled to capacity to hear such speakers as E. H. Fritz, new A.C.S. president; Professor A. S. Watts; John W. Howard, president of the Pittsburgh Alumni Association, a graduate of the class of '95; "Chief" Bill North, emeritus campus officer; and others from the Ohio State Capitol who reported on progress at the University. Professor R. M. King acted as toastmaster.

Above: "Chief" Bill North, emeritus officer, and John W. Howard, class of '95.

Left: E. H. Fritz, A.C.S. president. Right: Professor R. M. King, plus handlebar mustache.

Bottom: Section of the O.S.U. banquet room — and photo of the speakers' table.

FINISHFOTOS.

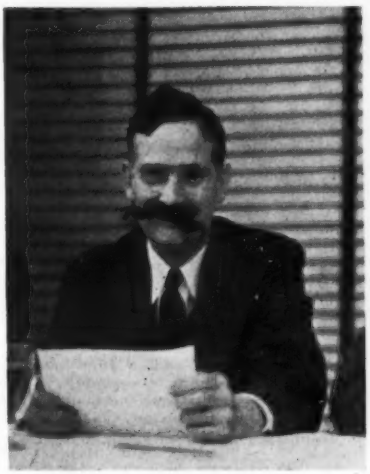
Said Professor Watts, "It is now possible to count the ceramic students on one hand." Despite the serious setback given technical training for peacetime activities by the War, O.S.U. is proceeding with the necessary planning for post war education. Plans are in the making for combining intensive ceramic training with industrial experience.

Short courses are planned to help relieve the inevitable situation of a dearth of men for industrial positions after the war.

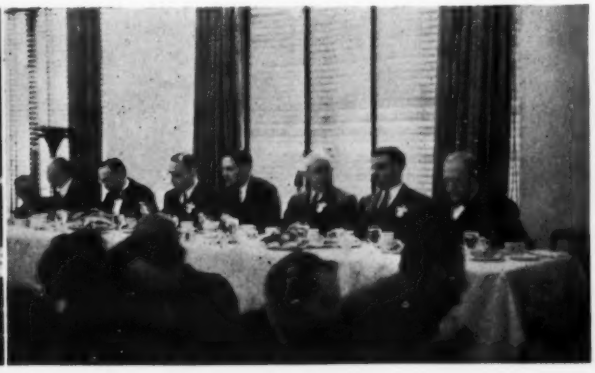
Aside from the talks covering the more serious aspects of the work of the University and the Alumni Association, one of the high spots of the evening was the homey discourse by "Chief" Bill North, who reigned supreme as campus "cop" from 1908 to 1943 and is well known to thousands of O.S.U. graduates who attended the university during that period.

Early in the program the dignitaries at the speakers' table gave assurance to the group that the meeting was not intended to ride on too serious a note when they donned mustaches of the handlebar variety, getting a well-earned ovation from the assemblage.

The banquet session was followed by a series of football movies showing the O.S.U. team in action.



The crowd was in an amiable mood, the setting was appropriate, the dinner was excellent and "all in all" the "grads" had an enjoyable evening.



N. G. WEDEMEYER — With Rohm & Haas Co., Philadelphia, he is known to enamelers for his work with opacifiers. Since the war he has been doing a job for his company in connection with plastics as used for combat aircraft, etc. "Norm" retains his interest in the enameling industry.

HERBERT TURK — As vice president of Pemco Corporation "Herb" plays an important part in his company's activity in serving enamelers. Right now one of Pemco's big jobs for the war effort is the production of smoke generators to assist in protecting our fighting men by giving them the "cloak of invisibility."

PEOPLE YOU KNOW

C. H. GODDARD — "Charlie" is well known throughout the lighting field, having taken an active part in industry activity as V. P. of Pittsburgh Reflector Co. He is now product manager, Lighting Fixture Div., Sylvania Electric Products, Inc., Ipswich, Mass., so he's naturally interested in ceramic finishes.

W. W. McDANEL — In the Beaver Valley (Beaver Falls, Pa., to be exact) is McDanel Refractory Porcelain Co., serving enamelers with porcelain grinding balls and mill lining brick. Walter McDanel's company is doing its bit during the war in the production of high temperature insulators for war purposes.

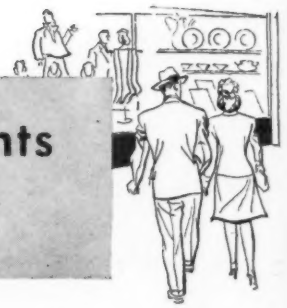
▲ *H. V. MERCER — As director of advertising for American Rolling Mill Co., Harry has taken keen interest in the educational and promotional activity of the industry. His advice and counsel have been helpful to those who direct the programs of the P.E.I. since the Institute's cooperative work was started.*

◀ *H. H. MORSE — A speaker who has appeared on many stove industry programs, Henry Morse, president, Florence Stove Co., Gardner, Mass., is a great fighter for the field in which his company is represented. One of his most recent talks was before the A.G.A.E.M. annual meeting in Chicago.*

N OR SHOULD KNOW } Strictly Candid

J. D. TETRICK — "Jim" has had broad experience in the enameling field, including the manufacture of frits and the operation of enameling plants. Formerly associated with Baltimore Enamel & Novelty ◀ *Co., later with du Pont, he is now Asst. Supt. at the Carteret, N. J. plant of Metal & Thermit Corp.*

EDWARD MACKASEK — Prior to joining the Porcelain Enamel Institute staff as development engineer, "Ed" had many years of practical enameling production experience as executive vice president ▼ *of Beaver Enameling Co., Ellwood City, Pa. He is "digging in" to P.E.I. work with enthusiasm.*



Building "sales pull" into store fronts with porcelain enamel beauty

THERE is big business in prospect for the enameling industry among the chain-store organizations, department stores and individually owned shops.

Merchants all over the country are planning to build greater "customer attraction" into their store fronts to meet the return of keen competition in unrestricted markets. Many of their plans will include the use of clean, smooth, colorful porcelain enameled sheets.

Inside the store too—for shelving, trim, racks, show cases, display fixtures, counters and working surfaces —the use of this easily cleaned, durable material effects worthwhile savings in labor costs and in reduced damage to destructible goods.

The enduring beauty of the porcelain enameled finish depends upon selection of the right metal base. For this purpose— by a special process— U·S·S VITRENAMEL Sheets are produced.

These sheets are light and strong, can be drawn, stamped and formed, are also sufficiently rigid to use for flat areas. Their treated surface enables the frit to establish a firm bond when fired. The uniformly high quality of U·S·S VITRENAMEL Sheets is assured by rigid control of each special process in their production.

These are some of the advantages you can offer store owners and all other customers when your solid color and attractively designed porcelain enamel panels are based on U·S·S VITRENAMEL Sheets. Upon request, our technical staff will be glad to discuss your individual problems with you in full detail. Write today, this service is absolutely free.

U·S·S VITRENAMEL SHEETS

CARNEGIE-ILLINOIS STEEL CORPORATION
Pittsburgh and Chicago
Columbia Steel Company, San Francisco,
Pacific Coast Distributors
United States Steel Export Company, New York

BUY MORE THAN BEFORE IN THE FIFTH WAR LOAN DRIVE

USS

UNITED STATES STEEL

Bentonite and feldspar on critical list

General Inventory Order M-161, which exempts certain products from inventory restrictions and maintenance, repair and operating supplies quotas, has been amended to adjust the status of certain materials that the order covers, the War Production Board announced.

In addition, administrative jurisdiction over the order has been transferred to the Inventory Control Branch of the Redistribution Division from the Miscellaneous Minerals Division.

Bentonite, feldspar and pyrophyllite have been removed from the list of items exempted from inventory restrictions, owing to the fact that supplies of these items have become more critical.

Pearce to A. C. S. as associate secretary

Information was officially released on May 15 by the office of the American Ceramic Society that Charles Pearce enters the employ of the Society as associate secretary on July 15, 1944. He will be located at the Society's executive offices.

According to the information released by the Society, this is a culmination of plans which have been under discussion for four years.

Although Charlie needs no introduction to enamelers, due to his close association with the industry for a number of years, it seems in order to review his background in connection with this current change.

FINISHFOTO

Charles Sidney Pearce was born at Wichita, Kansas, August 28, 1898. He attended public school in Steubenville, Ohio, graduating from high school in 1916.

In 1920, after several years with Weirton Steel Company, he entered the Carnegie Institute of Technology at Pittsburgh, Pa. In 1922 he withdrew to attend the Ohio State University, where he received his bachelor's degree in Business Administration in 1924.

After two years with the Tennessee Furniture Company at Chattanooga, Tennessee, he joined the Delco-Light Company in Dayton, Ohio, and remained with this organization when it later became the Frigidaire Division of General Motors Corporation. He held various supervising positions, taking charge of the porcelain enameling department in 1930. This department was at that time the largest wet process porcelain enameling plant in the world, consisting of nine continuous furnaces and nine box furnaces with supporting equipment. It normally employed in excess of 600 men.

In the fall of 1935, he was appointed assistant director of personnel for the Resettlement Administration with headquarters in Washington and was transferred with this bureau to the U. S. Department of Agriculture.

Early in 1938 he became Managing Director of the Porcelain Enamel Institute and has served in this capacity up until the present time. It was in connection with his work for the Institute, as well as his preceding work at Frigidaire, that he became well known throughout the enameling industry.

According to the A.C.S. report Mr. Pearce will continue in his present capacity at the Porcelain Enamel Institute until he assumes his new post with the Ceramic Society.

His affiliations include the following: Member of the American Ceramic Society, American Trade Association Executives, American Management Association, F. & A.M., Lambda Chi Alpha Fraternity, and Beta Gamma Sigma.

Trade publication bibliography

"Control of Expense Materials," Foremen's Magazine, Vol. 4, No. 12, December, 1928.

"Series on Accounting for Porcelain Enameling Plants," Enamelist, 1933-1934.

"Improved Cabinet Design Reduces Enamel Chipping," Steel, Vol. 98, No. 16, April 20, 1936.

"An Industry Comes of Age," Metal Progress, Vol. 32, No. 1, July, 1937.

"Open Hearth Iron Taps a New Market," Metal Progress, 1937.

In addition, Mr. Pearce has had other articles printed in the Enamel-

ist, Better Enameling, Ceramic Industry, and has presented numerous papers before the American Ceramic Society.

Midwest receives second white star

The Midwest Mfg. Company, Galesburg, Illinois, has just been notified by Robert P. Patterson, Under-Secretary of War, that the company has been awarded a second white star for the plant's Army-Navy "E" flag.

The following is quoted from Secretary Patterson's letter telling of the award:

"I am pleased to inform you that you have won for the third time the Army-Navy Production Award for high achievement in the production of war materiel.

"In maintaining the fine record which first brought you distinction, you have set an inspiring example for your fellow Americans on the production front.

"This renewal adds a second White Star to your Army-Navy Production Award flag, and stands as a symbol of your great and continuing contribution to the cause of freedom."

At the present time the company is chiefly engaged in manufacturing Droppable Gas Tanks for the Army Air Forces Materiel Command and several types of flares for Army and Navy Ordnance.

Promotions at Pemco

At the last meeting of the Board of Directors of Pemco Corporation the following additional officers were elected: Mr. B. F. DeFord as assistant secretary and Mr. John R. Reuling as assistant treasurer. Additional personnel have been added to take care of the increased activities in the accounting and auditing departments due to greater production requirements.

The Refrigeration and Air Conditioning Section of the General Industrial Equipment Division of the War Production Board has informed manufacturers and trade associations of the refrigeration industry that WPB is prepared to uprate to AA-1 orders for certain repair parts used by the industry.

This move has been taken to help solve difficulties that have developed in manufacture, delivery and installation of repair parts, WPB said.

Ritchey heads Carnegie-Illinois Market Development Division

FINISHPOTO

Carnegie-Illinois Steel Corporation has announced the appointment of Robert J. Ritchey as manager of the market development division of the sales department. Mr. Ritchey joined Carnegie-Illinois in 1937 as assistant in sales promotion. In 1941 he was made assistant manager of sales promotion and since December, 1941, has been acting as manager of the market development division.

Mr. Ritchey gained his education at the University of Pittsburgh, Temple University and the University of Cincinnati. He is a member of the Board of Trustees of the Porcelain Enamel Institute, a member of the Board of Directors of the Pittsburgh Chapter of the National Industrial Advertisers Association, a member of the Engineering Society of Western Pennsylvania and the American Iron & Steel Institute. Mr. Ritchey is also an aviation enthusiast and is a Staff Officer, 6th Group, Pennsylvania Wing of the Civil Air Patrol.

Washer & Ironer Association appoints executive secretary

Appointment of Allyn H. Noelke to be executive secretary of the American Washer and Ironer Manufacturers' Association, effective June 1, is announced by John M. Wicht, president of the organization and director of the home laundering equipment division, General Electric Co., Bridgeport, Conn. Mr. Noelke's office will be at 111 West Washington Street, Chicago.

Mr. Noelke until recently has been the operations executive of Region Six, OPA, headquarters at Chicago, a post he held from the inception of OPA. Before that he was general manager of the Paramount Electric Supply Co., Chicago, and manager of the specialties division, American Can Company, New York.

Westinghouse elects new Board member

William Christopher Robinson, president of the National Electric Products Corporation, has been elected member of the Board of Directors of the Westinghouse Electric and Manufacturing Company.

Mr. Robinson, whose home is in Pittsburgh, Pa., is also director of the West Penn Power Company, Jones & Laughlin Steel Corporation, Mellon National Bank, and the Union Trust Company of Pittsburgh.

It is reported that the Maryland Sanitary Manufacturing Corporation, Baltimore, Maryland, is planning expansion of its plant. In addition to their operations as manufacturers of sanitary ware the company also produces stoves and ranges.

Stove outlook brighter

Recent major amendments in orders affecting production of stoves and ranges offer an increasingly brighter outlook for necessary production to meet civilian demands.

Recent changes include the removal of weight restrictions on cooking appliances, allowance for the production of larger oil burning heaters, and some broadening of the construction specifications for ranges. Of these the first is unquestionably of greatest interest to the enameling industry. Asbestos board has been

used to some extent in victory models to meet previous steel limitations, and other curtailments and substitutions have been the order of the day in order to meet required specifications.

The revoking of a memorandum which prevented increases in production of civilian goods at first quarter levels in critical labor areas points to the possibility of some liberalization in production curtailment where the manpower requirements will not directly affect war production.

Bellevue Porcelain Enameling Company, Detroit, Michigan, has plans for a new addition to its job enameling plant calling for expansion in both plant and equipment.

H. K. Porter Co., Pittsburgh, Penna., manufacturers of ball mills and other processing equipment, recently purchased the Mt. Vernon Car Manufacturing Co. and the J. P. Devine Manufacturing Co., Inc., both of Mt. Vernon, Illinois. The acquisition of these companies is for the purpose of expanding the process equipment division of the company.

A. O. Smith appoints Donnelly

Appointment of Jim Donnelly as sales manager of the gas water heater division of A. O. Smith Corporation was announced by J. E. Woodall, Home Appliance sales manager.

Mr. Donnelly has had long experience in the gas appliance industry. He was formerly sales manager of Bastian-Morley Company, Inc., La Porte, Indiana. He is a member of the American Gas Association Water Heater Committee and OPA Water Heater Advisory Committee, and is chairman of the Water Heater Marketing Committee of the A.G.A.E.M.

Electromaster appoints Mid-West representative

It was recently announced by Gerald Hulett, vice president of Electromaster, Inc., that the Pierre L. Miles Company of Chicago will represent their domestic range and water heater line in Chicago, Northern Illinois, Indiana, Wisconsin and Minnesota.

Mr. Miles is well known in the electrical appliance industry, having been associated with Hotpoint for a number of years, and more recently with Nash-Kelvinator as sales manager.

Horton Manufacturing Company of Fort Wayne, Indiana, manufacturers of washing and ironing machines, recently elected E. A. Jordan as secretary of the company.

It is reported that Frank S. Whiting, vice president and director of the American Furniture Mart, Chicago, where he has been associated since 1924, has accepted an appointment with the War Production Board. His new position with the Board, as announced by S. B. Adams, division director, is that of chief of the furniture section, Consumer Durable Goods Division.

NESA to cooperate with other organizations

The National Electric Sign Association, Chicago, indicates that arrangements are being made through David R. Swormstedt, chairman of the Committee for Cooperation with Other Organizations, to establish close working relations with a dozen or more other national organizations with whom it seems desirable to maintain contact. Mr. Swormstedt is vice president of Signs of the Times Publishing Company, Cincinnati, Ohio.

NESA is also cooperating with the Veterans' Employment Service of the War Manpower Commission in its program to help secure employment for returning service men.

Wilder Joins National Tube

It is reported that Dr. Arthur B. Wilder, formerly chief metallurgist of the Porcelain Metal Products Company, Carnegie, Penna., has changed positions and is now with National Tube Company, Pittsburgh, Penna., in the capacity of chief metallurgist.

Dr. Wilder was associated for a number of years with the Jones and Laughlin Steel Corporation, Pittsburgh, Penna., prior to joining the Porcelain Metal Products Company organization.

George Westinghouse scholarship winners announced

Ten George Westinghouse scholarships, each valued at $1,850, have been awarded to top-ranking seniors in high schools from coast to coast. The winners will attend the College of Engineering of Carnegie Institute of Technology.

The selections were made from among 684 candidates in the seventh annual scholarship competition sponsored by the Westinghouse Electric and Manufacturing Company. Examinations were held last March 4. Recipients of the awards were chosen on the basis of mental ability, aptitude for engineering, and qualities of leadership and personality.

Rockford war products show helps recruit workers

Highlight speakers on the opening night program at the Rockford War Work Exposition, left to right: Comm. W. W. Weber, executive officer to the regional inspector of naval materiel; Stanley Hobson, president of the Geo. D. Roper Corporation and chairman of the Rockford Manpower Mobilization Committee: Capt. William E. Malloy, district inspector of naval materiel; Charles P. Casey, state war manpower commission director; and Lt. Col. E. L. Love, regional representative of materiel command of the army air forces.

A recent war product exposition featuring exhibits of war materials produced by local manufacturers was held recently at the Rockford, Illinois, Shrine Temple. This was the start of a four-week drive to recruit additional workers to help increase the city's war product production.

The exposition was planned by the Rockford Manpower Mobilization Committee under the chairmanship of Stanley Hobson, president of Geo. D. Roper Corporation. This group arranged a show which attracted thousands of visitors each day to view a "double feature", which included, in addition to a display of Rockford manufactured products, a showing of U. S. military equipment and captured war trophies.

Billboards, bus cards, bumper banners, street streamers, newspaper articles and radio "spot" announcements were used to good advantage in a complete publicity program designed to bring the show to the attention of all publicity war workers in the section.

Pemco uses unique advertising for recruiting war workers

Pemco Corporation, Baltimore, Md., had the problem of a vast increased production program, bringing with it a need for considerable increase in personnel which posed a formidable problem.

Being in a definite critical manpower area, the usual methods of procuring help fell a bit short of their goal. With the cooperation of Colonel Patrick F. Powers, Commanding Officer of the New York Chemical Warfare Procurement District, a series of advertisements were developed.

In these ads the need for "help" was apparently a secondary consideration. The greater stress was being placed upon the "life saving" properties of the smoke generators which Pemco is producing. Copy measuring a quarter page in size and appearing once each week was decided on.

The value of "smoke" in various operations by the armed forces is stressed by such incidents as the following:

One day last January troops and equipment were streaming along a highway at the foot of Mount Trocchio near Cassino. German artillery on the mountain had direct observation of the exposed area and began pumping shells into the road.

It was imperative that these supplies be kept moving up to the front. Members of the chemical battalion set out hundreds of smoke pots around the shelled area, producing a huge screen six miles long and two miles high under which the highways disappeared from view.

The Nazi gunners were blinded. They fired more than a thousand shells in the area that day but, because of the protective cover, there was practically no damage and traffic proceeded with little interruption. Another C.W.S. battalion brought up 170 tons of fresh smoke pots and, when the last official report of the operation came in, the smoke blanket had been maintained over twelve square miles for three consecutive days.

Pemco quotes Colonel Charles S. Shalde, Chemical Officer at Allied Force Headquarters in the North African theatre, as saying, "My observation is that the little smoke pot is one of the handiest of chemical warfare items. If any apparatus could be decorated, I think it should be the C.W.S. smoke pot."

New ad man and editor for Chicago Vit.

Announcement has just been received from Chicago Vitreous Enamel Product Company, Cicero, of the appointment of Howard Moad as advertising manager and editor of Better Enameling Magazine.

Mr. Moad has had a number of years of newspaper and house organ

to Page 44 →

News from Washington

Automobile Advisory Committee states views on civilian production

Following an earlier meeting of the Automobile Industry Advisory Committee, members of the Automobile Labor Advisory Committee met with officials of WPB to discuss the readjustment problems facing the industry.

"On all of these important readjustment problems, we want the advice and suggestions of labor just as we want the advice and suggestions of industry," WPB Chairman Donald M. Nelson told the labor group. "We're not going to do this job in the interest of the owners of the plants or in the interests of labor; we're going to do it in the public interest."

Both Mr. Nelson and Mr. Wilson, Executive Vice Chairman of WPB, reemphasized the previously stated policy that only very limited civilian production will be possible until the defeat of Germany. Members of the Committee expressed complete agreement with this view, but stated that they were opposed to blanket prohibitions of civilian production in all tight labor areas. Pointing out that some industries in every region will be freed from war work and could undertake essential civilian production without injury to the war program, the Committee felt that decisions should be made on the basis of a study of individual cases.

Ceiling prices on excess steel

Acting to speed the flow of excess stocks of iron and steel products which may be disposed of in substantial volume as the heavy production phase of the arms program nears its completion, the Office of Price Administration has announced new specific ceiling prices, to become effective June 1, 1944, for transfers of such excess supplies.

By rigid provisions governing sales by resellers of excess stocks of iron and steel products acquired from holders, the price agency expects to prevent acquisition of such stocks for speculative holding or sale.

Exempted from all price control, however, are transfers of material from contractors or sub-contractors to the United States Government or its agencies, due to cancellation of Government contracts.

In general sales of iron or steel products by a war equipment manufacturing plant or other similar holder are governed as follows: Maximum prices are established as the basic mill ceiling price to a consumer, plus freight from the governing mill basing point to the holder's location of material, plus actual transportation costs to the buyer's destination, adjusted for quantity and quality differentials.

Steel for water heaters

The prohibition on the use of metal jackets for water heaters has been relaxed to permit the use of steel in manufacturers' inventories on May 8, 1944, and such steel as may be obtained from frozen, idle and excess inventories, the War Production Board reported. Because the sheet steel supply is still tight, use of steel from rolling mill supplies is still prohibited for water heater jackets.

Previous restrictions prohibited the use of any metal jackets, except for oil fired units, and manufacturers have been making fiberboard jackets as substitutions. Fiberboard is not readily obtainable at present, so this recent action was taken to aid manufacturers in obtaining sufficient material to produce needed water heater jackets, WPB said.

Water heater amended Order L-185 permits both new and used direct and indirect fired water heaters to be sold to consumers for replacement and maintenance purposes without ratings.

Floodlight distribution aided

Distributors of electrical goods may apply to WPB for minimum inventories of floodlights. Applications should be made on WPB Form 547, the Distributor's Application for Preference Rating.

Inventories in the hands of distributors are expected to facilitate prompt delivery of floodlights to military establishments and war plants.

To receive consideration, distributor applications must be for standard floodlight sizes only, and quantities requested must be by type, *not* "assorted floodlights." Requests should be limited to minimum needs.

After a distributor has established his floodlight inventory, it should be replenished by extending preference ratings.

Lighting industry information

At the end of April it was reported that unless military demands for tungsten and molybdenum increases unexpectedly these materials will continue to be allocated to the lamp industry for the remaining months of the year at approximately the same rate as in May and June.

The industry's total production and shipments of fluorescent and incandescent lamps are said, by WPB officials, to be well in line with essential military and civilian requirements.

IAC members estimated that requirements for fluorescent lamps for 1944 would be around 40 million. This corresponds very closely to the present production program.

Comparison of the 40 million figure with information contained in the article in this issue entitled 'World's Largest Aircraft Factory Uses Porcelain Enameled Reflectors"*, will give some conception of the reflectors involved in the use of this quantity of lamps. (*See page 9)

Commercial cooking equipment industry committee active

The Committee met recently with government officials in Washington to discuss a proposed revision of the commercial cooking equipment limitation order, in-plant feeding, and the effect on industry of current labor problems.

The proposed revision of Order L-182 (Commercial Cooking and Food and Plate Warming Equipment) provides that a blanket production quota be established for the industry as a whole and individual manufacturers would be allocated

material each quarter on the basis of their capacity to produce and the need for the type of equipment each produces. Under these provisions, the Plumbing and Heating Division would be able to increase quotas for badly needed items and decrease quotas for less needed equipment.

Under the present procedure, a manufacturer can apply for enough material to manufacture for civilian requirements 6¼% of his base year production. If he is not able to use all of the material he is entitled to use because of contracts with the Armed Services, all or part of his quota is lost since it cannot be taken over by another manufacturer. The proposed revision to the order would allow WPB to make use of that material which would otherwise not be used for production of commercial cooking and food and plate warming equipment.

Committee members agreed that the proposed change was a good practical plan for making full use of the established quota and that it would make it possible to get more essential items produced. The necessity for filing appeals would be eliminated under the revised order, it was pointed out.

The Committee recommended that the proposed revision of the order be made effective.

Needs of the Armed Services are being taken care of, the Committee said, but there is an increased need for commercial cooking equipment for civilians since much of the old equipment is wearing out and now needs to be replaced.

A representative from the Service Trades Division of the Office of Civilian Requirements was present at the meeting and discussed with the Committee the industrial feeding program. Industry representatives urged that information on the industrial feeding program be supplied to the manufacturers at the earliest possible date to enable them to make the necessary plans for producing the equipment.

In discussing the labor situation as it affects this industry, Committee members pointed out that domestic ranges are included in the list of essential activities of the War Manpower Commission. They requested that commercial cooking equipment should also be listed. Mr. Holbrook, Government Presiding Officer at the meeting, agreed to investigate this matter immediately.

The Committee indicated that the new all-purpose form WPB 1319 has been somewhat confusing for the applicants. They recommended the return to the use of Form WPB 1529 since it provides more adequate and accurate data for judging the applicant's request.

The following analysis of applications granted during February and March of 1944, for new commercial cooking equipment and food and plate warming equipment for all uses was read to the Committee:

	Equipment			
	February		March	
Type of Equipment	New	Used	New	Used
Ranges	1,485	180	1,575	130
Steam Tables	314	199	283	141
Fryers	297	48	43	59
Steam Kettles	193	7	325	8
Bake and Roasting Ovens	169	14	159	34
Vegetable Steamers	59	2	65	3
Bakers Stoves, Hot Plates, Griddles and Grills	419	130	368	101
Toasters	67	10	47	4
Urns	637	423	430	285
Broilers	122	33	130	25

Commercial dishwashing machine industry

A proposed revision of the commercial dishwashing machine limitation order was considered by members of the Commercial Dishwashing Machine Industry Advisory Committee at a recent meeting with government officials in Washington.

In order to provide sufficient production of commercial dishwashing machines to meet stated requirements of all claimant agencies, the proposed revision of Order L-248 (Commercial Dishwashers) would allow a quarterly production of 10% of 1941 production for the industry as a whole, Harry J. Holbrook, Government Presiding Officer at the meeting, explained to the Committee. An individual manufacturer would be allocated material each quarter on the basis of his capacity to produce.

Under the order as it now stands, each manufacturer is limited to a quarterly production of 6¼% of his 1941 production, so that no provision is made for the industry as a whole to make up the deficiency in production caused when some manufacturers fail to produce their allotted quarterly quotas because of contracts with the Armed Services. By assigning a quarterly quota of 10% for the industry as a whole and allowing individual manufacturers to exceed the 10% quota, this difficulty would be eliminated, the Committee agreed. The proposed revision of the order was approved by the Committee.

The Committee was asked whether any expansion of dishwasher production under the proposed in-plant feeding program would require an increase in the amount of labor required by this industry. Industry representatives believed they could increase their production without an increase in their labor supply if they were able to obtain component parts more readily. Many manhours are lost because some component part is not available and production is held up.

In a discussion of the new WPB 1319 application form, the Committee recommended that WPB form 1529 should be used instead of WPB 1319 because it gives more information for judging the need of the equipment by the Plumbing and Heating Division.

Conference of domestic laundry equipment service managers

Availability of repair parts and service for domestic washing machines was the topic of discussion at the recent Industry-WPB conference. While demand is mounting, and short supply is encountered in some areas, the general situation was revealed to be improved over that of a year ago.

Necessary materials for the manufacture of repair parts were stated, by Government representatives, to be generally available in adequate quantities. Of the once-critical group, copper is the only material which may still be considered fairly tight in relation to quantities needed for washing machine repair. For success in adjusting the raw materials problem, the industry's cooperation in

to Page 41 →

Eastern enamelers' club

first wartime meeting

THE Ritz-Carlton Hotel in Philadelphia, Pa., was the meeting place for the Eastern District Enamelers on Saturday, May 6. A sizable and representative group of enamelers from New York, New England, New Jersey, Pennsylvania, Maryland, etc., converged on the "liberty bell" city for their first get-together since May 16, 1942.

FINISHFOTO

George Wiese, club president, kept the meeting moving.

Officers of the Club are: George Wiese, Baltimore Enamel and Novelty Co., president; George Dyer, Pottstown Mfg. Company, secretary-treasurer; and S. B. (Blackie) Pearlman, Bright Light Reflector Co., vice president.

R. R. Danielson, Metal & Thermit Corporation, the program chairman, had arranged an interesting program consisting of a talk by B. T. Sweely, vice president of Chicago Vitreous Enamel Product Co., entitled "Post-War Processing for Reduced Enameling Costs"; a paper by P. C. Stufft, development engineer for Pemco Corporation, entitled "The Reflectance of Cover Coat Enamels as Affected by Ground Coats"; and a colored movie showing the extensive use of porcelain enamel for architectural purposes, presented by R. J. Ritchey, manager of market development division, Carnegie-Illinois Steel Corporation.

The program

President Wiese opened the afternoon session with a brief review of club activities and plans, and then introduced the first guest speaker.

Mr. Sweely traced the "phenomenal" advancement of the enameling industry in the last two decades and credited the advance to years of research and development work "which has resulted not only in an improvement in the quality of the enamel finish, but also in a reduction in enameling costs."

He traced some of the high points in enamel development and processing during recent years but pointed to the necessity for alertness to new improvements. In this connection he said: "We are facing a period in which competitive finishes and metals other than steel will be making a bid for a portion of the product surfaces formerly made from steel and finished in porcelain enamel. How successfully we combat the inroads of these materials upon our field will depend to no small extent upon the thoroughness with which we do our job of porcelain enameling."

In the section of his talk covering shop processing Mr. Sweely dealt principally with cleaning and pickling problems or "metal preparation," covering many of the conditions that may be encountered and procedures for processing and testing in the various pickle room solutions. He also touched on "gas pickling," "low pH cleaning,"* the feasibility of cleaning or washing fabricated ware *before* welding or assembly, and other equally pertinent points.

Mr. Stufft presented to the Eastern group the paper on the color effect of under coats on cover coat enamels which he prepared for the recent A.C.S. enamel division program.

*See April *finish* page 20 — "The Application of Low pH Cleaning to Porcelain Enameling."

This speaker prophesied the ultimate use of "white" ground coats and the possibility of reduced thicknesses of enamel coatings, and continued reduction in production costs.

Mr. Ritchey offered a running description with the movie. The script is prepared in "ABC" form to outline in easily understandable terms the important steps in the manufacture of architectural porcelain for presentation to architects or potential architectural enamel users.

Group discussion included such subjects as electrolytic cleaning, the use of molten solutions for cleaning, and individual shop practices and experiences.

Fall meeting planned

It was unanimously voted that a fall meeting of the Club should be held, with the scene of the meeting to be Baltimore, Md. One of the

FINISHFOTO

George Dyer, club secy-treas. collected the "dough."

speakers favoring the resumption of regular meetings was Nathan Klein, president of Caloric Gas Stove Works, Topton, Pa. "I believe that a lot of good can come from these gatherings," said Mr. Klein. "Competition is not asleep, everyone is doing some post-war planning and we shouldn't sit back."

J. D. Taylor of Standard Gas Equipment, Baltimore, Md., also spoke in favor of a fall meeting, with provision for later decisions on meetings to follow.

to Page 46 →

Above: Reading left to right are Louis Scionti and Jack Weiler of The Miller Company, and Howard Price and George Ecke of The Prizer-Painter Stove Works.

Above: Ferro Enamel Corporation's Lou Hart Woody Wilson. — Circle: Ed Adams of Robert Mander Stove Company.

SNAPSHOTS OF THE

ALL FINISHFOTOS.

Above: Max Herman of Welbilt Stove talks it over. —Circle: Jim Lardusky of Baltimore Enamel & Novelty Co. — Right: Jack Weiler of The Miller Co.

Above: 1st row, left to right, Geo. Wiese of Baltimore Enamel & Novelty Co., and Chicago Vit's Ed Greenstreet. 2nd row, Geo. Daily, I. A. Prouser and C. D. Kysor of The Stove Works.— Below center: Armco's Fred Campbell with Paul Seasholtz of J. M. Seasholtz & Sons, Inc.

Above: A smile from Ed Seasholtz of J. M. Seasholtz & Sons.— Below: Tom Moran of C. V. Hill and Co. "looks for the birdie."

EASTERN ENAMELERS

Left: Again we see George Ecke of Prizer-Painter.— Right: C. D. Kysor of The Stove Works makes himself comfortable.

A-B Stoves, Inc.
Abendroth Bros. Company
Allen Mfg. Company
Alliance Porcelain Products Co.
Altorfer Bros. Company
American Radiator Co.
American Stove Co., Cleveland, Ohio
American Stove Co., Harvey, Ill.
American Stove Co., Lorain, Ohio
American Stove Co., St. Louis, Mo.
Armstrong Products Corp.

W. A. Barrows Porcelain Enameling Co.
Beaver Enameling Co.
Bellevue Porcelain Enameling Co.
Belmont Stamping & Enameling Co.
Benjamin Electric Mfg. Co.
Bettinger Enamel Co.
Briggs Mfg. Co.
Bright Light Reflector Co., Inc.

California Metal Enameling Co.
Caloric Gas Stove Works
Canton Stamping & Enameling Co.
Chambers Corp.
Chattanooga Stamping & Enameling Co.
Clyde Porcelain Steel Corp.
Co-operative Enameling Co.
Cribben & Sexton Company

Davidson Enamel Products Co., Connersville, Ind.
Davidson Enamel Products Co., Lima, O.
Detroit-Michigan Stove Works
J. C. Dunlap Company

The Enamel Products Co.
Erie Enameling Company
Estate Stove Company

Federal Enameling & Stamping Co.
Federal Radio & Telegraph Co.
Ferro Enameling Co., Oakland, Calif.
Fletcher Enamel Company
Florence Stove Co., Gardner, Mass.
Florence Stove Co., Kankakee, Ill.
Florence Stove Co., Newark, O.
Ed. Friedrich, Inc.
Frigidaire Div., General Motors Corp.

Gaffers & Sattler Company
General Electric Co., Erie, Pa.
General Electric Co., Schenectady, N. Y.
General Porcelain Enamel & Mfg. Co.
Geuder, Paeschke & Frey Co.
Gibson Electric Refrigerator Co.
Glascote Products, Inc.
Glenwood Range Co.
Globe-American Corp.
Goodrich Electric Co.
Jas. Graham Mfg. Co.

C. V. Hill & Co.
Holland-Reiger, Inc.
Humphreys Mfg. Co.
Hussman-Ligonier Co.

Ice Cooling Appliance Corp.
Independence Stove & Furnace Co.
Ingram Richardson Mfg. Co., Frankfort, Ind.

Kalamazoo Stove & Furnace Co.
Kelvinator Corp.

Leonard & Baker Stove Co.
Lisk Mfg. Co.

Moore Corporation
Moore Enameling & Mfg. Co.
Mt. Vernon Furnace Mfg. Co.
Mullins Mfg. Corp.

Newark Porcelain Enameling Co.
Norge Div., Borg-Warner Corp.

Ohio Foundry Company
O'Keefe & Merritt Co.

Peerless Enamel Products Co.
Perfection Stove Co.
Pfaudler Co., Elyria, O.
Pfaudler Co., Rochester, N. Y.
Porcelain Metals Corporation
Porcelain Metals, Inc.
Portland Stove Fdry. Co.

Quality Porcelain Enamel & Mfg. Co.
Quincy Vitreous Enameling Co.

Reading Vitreous Enameling & Fdry. Co.
Republic Stamping & Enameling Co.
Roberts & Mander Stove Co.
Roesch Enamel Range Co.
Geo. D. Roper Corp.
Round Oak Stove Co.

Samuel Stamping & Enameling Co.
Servel, Inc.
Southern Metal Products Co.
Standard Enameling Co.
Standard Porcelain Enameling Co.
The Stove Works
Strong Mfg. Co.
Sunbeam Electric Mfg. Co.

Tappan Stove Co.
Tennessee Enamel Mfg. Co.
Tennessee Stove Works
Texlite, Inc.
Toledo Porcelain Enamel Prod. Co.
Tyler Fixture Corp.

U. S. Stamping Co.

Vitreous Steel Products Co., Cleveland, O.
Vitreous Steel Products Co., Nappanee, Ind.

Warren Co.
Welbilt Stove Co.
Western Stove Co.
Westinghouse Elec. & Mfg. Co.
Wrought Iron Range Co.

Youngstown Pressed Steel Div., Mullins Mfg. Co.

...for the RECORD...

COMPLETE* LIST OF CUSTOMERS
FERRO'S ENGINEERING DIVISION

CANADA

A. Belanger, Ltd.
Canadian General Electric Co.
Canadian Westinghouse Co., Ltd.
Empire Stove & Furnace Co.
Enamel & Heating Products, Ltd.
Findlays, Ltd.
LaFonderie de L'Islet, Ltd.
General Steel Wares, Ltd.
Guelph Stove Co., Ltd.
Gurney Foundry, Ltd.
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Cia. Argentina de Productos Enlozados y Anexos S. A.
F. Daroch & Cia.
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Fabrica Ferro Esmaltado Silex S. A.
Hime & Cia.
Ind. Martins Ferreira S. A.
Juan B. Istilart Ltda.
Manufacturas Corona S. A.
Manufacturera de Metales S. A.
C. I. Sousa Noschese S. A.
Obuljen Mardones & Pacheco Ltda.
Jose Pascucci y Cia.
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AUSTRALASIA

Chown Bros. Pty., Ltd.
Alex. Harvey & Sons, Ltd.
Metters K. F. B. Pty., Ltd.
McIlwraith Industries, Ltd.
Claude Neon, Ltd.
Radiation (New Zealand), Ltd.
H. E. Shacklock, Ltd.
A. Simpson & Sons, Ltd.

GREAT BRITAIN

Benjamin Electric Co., Ltd.
R. & A. G. Crossland, Ltd.
Electrolux, Ltd.
R. & A. Main, Ltd.

EUROPE

Aktiebolag M. Lundgrens Gjuteri
Husqvarna Vapenfabriks A. B.
J. Kaliba & Sohn
Siemens-Schuckertwerke A. G.

** In the Porcelain Enameling Field ONLY . . . and for whom furnaces or complete plants have been or are being built.*

An Apology!

In a recent advertisement we ran a partial list of "satisfied users" of Ferro Furnaces. Naturally, it had to be a *partial* list if we were to say anything else in the ad.

To those friends and old customers who "protested" against being *left out* of this listing we sincerely apologize and hereby attempt to make amends. We only wish we could use the complete list in *every* advertisement—as our old customers are our biggest boosters and, incidentally, our best salesmen.

FERRO ENAMEL CORPORATION
CLEVELAND 5, OHIO

AGAEM annual meeting . . . *(Continued)*

rapidly expanded to farms in the north central states to the extent that about 42% of the total installations are on farms. Expansion has been curtailed during the war period due to transportation difficulties, but after the war the present demand of liquefied petroleum gas for war uses will undoubtedly decline rapidly thereby freeing large quantities of both butane and propane for use as domestic fuel. A slight increase in the tank car price of liquefied petroleum gas would cause a much greater quantity of both butane and propane to be recovered and companies could put in additional recovery equipment. It, therefore, now seems certain that liquefied petroleum gas will be available in sufficient quantities to supply future domestic demands for many years to come.

Division and Committee Chairmen for 1944-45

Direct Heating Equipment Division — H. E. Thompson, chief engineer, Peerless Manufacturing Corp., Louisville, Ky.

Domestic Gas Range Division — F. J. Hoenigmann, Cribben & Sexton Co., Chicago, Illinois.

Gas Refrigerator Division — Louis Ruthenburg, president, Servel, Inc., Evansville, Indiana.

Gas Valve Division — R. L. O'Brien, Detroit Brass & Malleable Works, Detroit, Michigan.

Gas Water Heater Division — J. R. Lavelle, John Wood Mfg. Co., Conshohocken, Pa.

Hotel, Restaurant & Commercial Gas Equipment Division — Stanley E. Little, vice president, American Stove Company, Cleveland, Ohio.

House Heating and Air Conditioning Equipment Division — A. A. Marks, Richmond Radiator Co., Uniontown, Pa.

Industrial Gas Equipment Division — E. W. Mears, Mears-Kane-Ofeldt, Philadelphia, Pa.

Meter & Regulator Division — Norton McKean, president, American Meter Company, Albany, New York.

Thermostatic Control & Accessories Division — W. T. Bentley, president, Titan Valve and Mfg. Co., Cleveland, Ohio.

CP Sales Management Committee — L. C. Ginn, American Stove Company, Cleveland, Ohio.

Advisory Council — F. H. Adams, Surface Combustion, Toledo, Ohio.

Policy Committee — W. T. Rasch, Security Manufacturing Co., Kansas City, Mo.

P.C.G.A. Manufacturers Section — A. H. Sutton, president, Mission Water Heater Co., Los Angeles, Cal.

P.C.G.A. Manufacturers Section — Vice Chairman — E. T. Howard, general sales manager, General Controls Co., Glendale, Cal.

$4,000,000 spent in past three years to promote CP gas ranges

CP promotional budget upped 150 per cent for next six months

MORE THAN $5,000,000 has been spent in the past three years in national magazine and newspaper advertising to promote postwar sales of gas appliances, Lloyd C. Ginn, chairman of the CP Gas Range Manufacturers Executive Committee announced at the CP Manufacturers Annual Meeting in Chicago on May 9. Of this amount, $4,000,000 was spent by manufacturers and gas utilities to promote the CP Gas Range. At the same time, Mr. Ginn announced a 150 per cent increase in CP manufacturers advertising and promotional budget for the last six months of 1944.

Increases in the CP promotional budget were made to allow wider coverage of architects and builders, furniture, hardware, department store and the other appliance dealers who sold 2,300,000 gas ranges valued at approximately $140,000,000 in 1942.

By handling gas ranges built to CP specifications, dealers will be able to meet price competition with a quality product that has ready consumer acceptance and to capitalize on the growing emphasis on grade labeling and the increasing consumer demand for higher quality products built to recognized uniform standards Mr. Ginn pointed out.

With the exception of the I.E.S. Lamps, the CP Gas Range is the only program in which manufacturers within an industry have set up product specifications among themselves according to Mr. Ginn. Success of the CP program is indicated by the average increase to $70 in unit sales price of all gas ranges from 1939 to 1942 and the 140 per cent increase in oven heat controlled gas ranges.

Because of the increasing demand for material in the CP Business Building Plan and the large number of requests from dealers for the Kit describing the plan, the present program will be continued and augmented during the balance of the year, Mr. Ginn reported. Theme of the CP Business Building Plan is making jobs for 10,000,000 service men by placing orders now for postwar delivery.

Eastern L. P. G. A. Meeting

The Eastern Section of the Liquefied Petroleum Gas Association held a two-day meeting April 13 and 14 in New York City, at which an interesting program was presented.

Industrial speakers included B. O. Brown, Servel, Inc.; K. M. Clark, Ruud Manufacturing Co.; and H. E. Nickerson, Glenwood Range Co.

Other speakers were Paul K. Thompson, chief, Liquefied Petroleum Gas Section, Petroleum Administration for War, and C. V. Sorenson, Northern Indiana Public Service Company. Lowell Thomas headed the luncheon program for April 14.

For ordinary cleaning, plenty of hot water and soap usually restores porcelain enameled pots and pans to sparkling cleanliness.

Evidence that porcelain enameled hospital equipment provides sanitary protection in the home sickroom is that enameled ware is used almost exclusively in hospitals throughout the country.

The how and why of sign advertising . . *(Continued)*

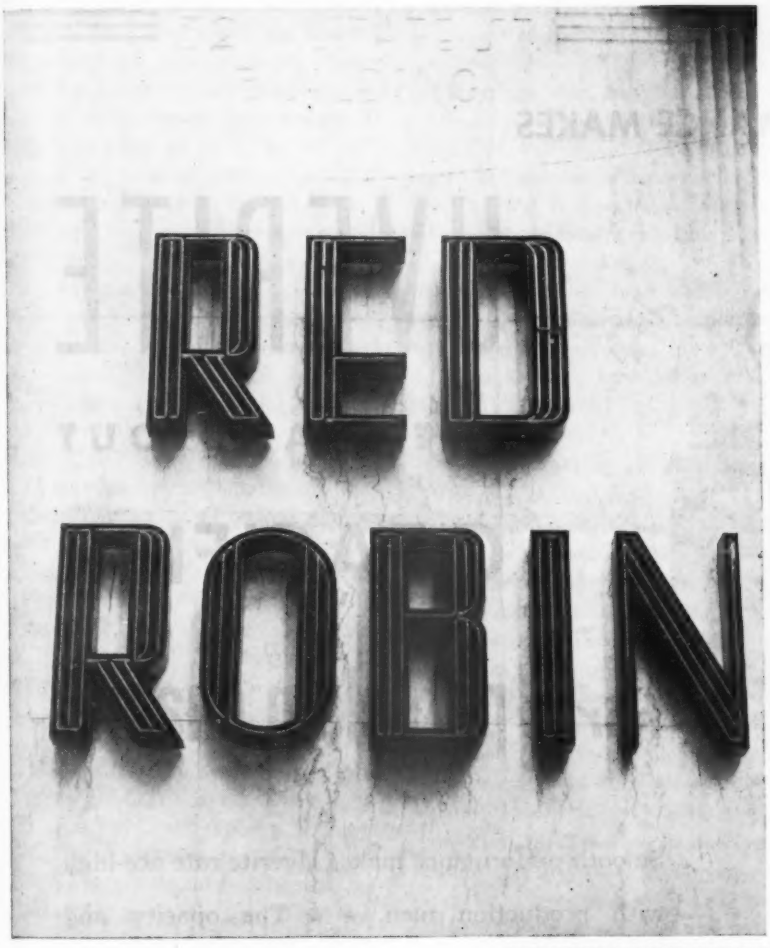


PHOTO COURTESY ACME-WILEY CORPORATION

Porcelain enameled letters mounted on marble building face.

many abilities required in the direction of sign advertising. The primary qualification of such a man, of course, is that he be an advertising man. He should be equipped to buy sign advertising as he buys any other advertising medium. He should think of his medium in terms of the number of sales-stimulating messages it will convey to prospective customers. He shouldn't think of signs as just so much metal, porcelain enamel, glass and electrical equipment.

Sales stimulation is the objective

When an advertiser pays $8,500 for a single black and white page in the Saturday Evening Post, he isn't buying three million odd pages of paper. He's buying the sales that the $8500 will produce, the sales-stimulating effect of that page. He doesn't care much about the quality of the paper in the Post but he does care very definitely about the cost for which the Post will deliver his sales-stimulating appeal to prospective customers.

Similarly, a sign buyer should have foremost in his mind this question: "What type of sign will deliver the most sales messages to prospective customers at the lowest unit cost?"

Facts bearing on this question will be presented later in this series of sign articles — facts that may assist in the selection of the type of signs that deliver *the greatest number of effective sales messages at the lowest "per reader" cost.*

Industrial Publications

Remanufactured Used Equipment

Literature prepared by Hill-Clarke Machinery Company, 649 Washington Blvd., Chicago 6, Illinois, explains how such equipment as lathes, grinders and other important items of equipment in industrial plants can be remanufactured and modernized to take their place again in the production line.

Wheelabrator Digest

American Foundry Equipment Company, 519 S. Byrkit Street, Mishawaka, Indiana, have published a spring issue of Wheelabrator Digest, which features the use of the Wheelabrator method of cleaning metal products.

Infra-Red Radiation

Burdett Manufacturing Co., 19 North Loomis St., Chicago, Illinois, published a booklet covering the Burdett "Infra-Red Principle"—explaining what it is and what it does in connection with industrial applications. The book includes both schematic drawings and photographs of installations, plus tables showing BTU capacities, recommended baffle limits, etc.

Welding Briefs

Metal & Thermit Corporation, 120 Broadway, New York 5, New York, offer this publication on welding engineering and stories on typical uses for welding.

Industrial Combustion Data

The Hauck Manufacturing Company, 124-136 Tenth Street, Brooklyn 15, N. Y., have published a comprehensive, 112-page book of industrial combustion data. Included in the book are definitions of technical terms, data on both oil and gas burning systems and equipment, and a comprehensive list of tables covering general industrial heating data.

SW Tangent Bender

Struthers Wells Corporation, Titusville, Pennsylvania, have just re-

to Page 46 — Col. 3 →

SMOOTH PERFORMANCE MAKES

UVERITE

THE STAND-OUT

OPACIFIER

for... porcelain enamel

Smooth performance makes Uverite rate ace-high with production men. ★ ★ The opacity and coverage of Uverite Enamels run uniformly high. Burning range and clean surface make Uverite Enamels easy working. ★ ★ These are a few outstanding qualities which indicate why more production men use Uverite than any other opacifier. When you want a better, whiter surface . . . use Uverite as your mill addition opacifier. Large stocks are available and shipments are unrestricted.

HARSHAW

THE HARSHAW CHEMICAL CO.
1945 East 97th Street, Cleveland 6, Ohio
BRANCHES IN PRINCIPAL CITIES

the salvage of wornout parts was stated to be a most important factor. Manufacturers, now obtaining close to 100 per cent of their materials requirements for repair parts, are regularly returning as much as 90 per cent in the form of scrap.

While more of a current problem than raw material, components were generally held by both industry and government representatives to be in increasing supply. *Small electric motors*, the components most closely competitive with the war program, are still short of total demand but are being produced in increasing numbers. AC types, required for most washing machines, continue to be tight. Maintenance of civilian equipment is a most important program, and further efforts are being made to protect motors for that purpose from competition with higher ratings at the point of sale. Industry representatives agreed that a more clear-cut earmarking of motors for civilian maintenance would be most desirable.

The situation on other components such as ball bearings, sleeve bearings, oil seals, synthetic rubber wringer rolls and drain hose, and agitators is said to be satisfactory or improving. Packaging materials are short and the use of second-hand containers is urged.

Facilities most urgent problem

The most widespread industry problem appears to be that of obtaining the facilities needed for comparatively small runs. It was agreed, however, that WPB's "minimum practical run" provision had, in general, been of assistance in relieving this problem by permitting orders of reasonable size.

Inventory provisions for manufacturers of repair parts as stated in the washing machine order, L-6, were discussed recurrently throughout the meeting and WPB agreed to consider adjustment in view of changing conditions. It was unanimous opinion of the industry that the producers' repair parts inventory base (number sold during the first half of 1943) is not in line with the increasing needs of aging machines, and that somewhat greater production should be permitted because of enlarging consumer demand. In many cases, industry men said, they have had to produce repair parts for obsolete models, for which individual need is urgent but general demand small. As this condition is expected to increase, it is one of the factors requiring more liberal inventory ruling.

Many companies have greatly increased their number of authorized repair shops, one having gone from 3000 to 5000 to keep up with increased demand.

Airport lighting equipment

The major topic discussed at a recent industry advisory meeting was a proposed amendment of Order L-235 covering the manufacture and distribution of aviation ground lighting equipment. The change in terminology in the proposed amendment from "airport lighting equipment" to "aviation ground lighting equipment" had been suggested at the previous meeting of the committee to broaden the coverage of the order.

Here is a field that could well bear scrutiny by porcelain enamelers in order to take advantage of any new trends in airport lighting and marketing.

Domestic mechanical refrigerator service manager conference

Recent conference of this group was held for the purpose of discussing the outlook for the repair and maintenance of domestic mechanical refrigerators.

Production of repair and maintenance parts for refrigerators is much higher now than it was a year ago, the industry members reported. The amount of material made available by WPB is adequate, they said, but shortages of manpower and facilities cause difficulties in the fabrication of the material. Facilities in the plants are used for war work to a large extent, and workers are being drafted in increasingly large numbers for service in the armed forces.

The industry is voluntarily carrying out a program under which inoperative functional parts are exchanged for new ones and reconditioned by manufacturers. Other parts are salvaged by distributors or dealers. This program is proving highly successful, it was reported. In some instances as much as 90 per cent of the total amount of material originally allocated for the production of parts is being recovered.

AC motor production is almost double what it was a year ago, industry members were told. About 85 per cent of total production is going into combat equipment, but enough AC motors are expected to be available for most of the essential replacements for domestic mechanical refrigerators.

The "freon" situation is improving slowly, WPB officials said. All requests for "freon" for the re-operating of hermetically sealed units for household refrigerators are being granted by WPB.

Revised instructions on priority requests

Business firms and individuals who normally apply for priority assistance on WPB Form 541 (formerly PD-1A) for the acquisition of equipment or materials other than controlled materials are advised to follow the revised instructions for the filing of this form, the War Production Board announced recently.

The amended instructions are effective May 1, 1944, and apply to the use of the form only. No change is made in the form itself or in the information asked for where the filing of this form is required.

In the interest of paper conservation, applicants are advised to continue to use the old form (identified by the printing date 7/6/43, which appears in the upper left corner), but observing the revised instructions.

Separately printed instruction sheets containing the revised instructions for the filing of WPB Form 541 are now available at all WPB regional or district offices.

The revised instructions include: applications for project ratings, applications for materials for export,

Over →

applications for equipment and applications for individual consumers, such as "Applications for Civilian Plumbing and Heating Equipment," etc.

Maximum pricing for new merchandise changed by O. P. A.

Several changes in methods of determining maximum prices for new kinds of merchandise under the General Maximum Price Regulation were announced May 13th by the Office of Price Administration.

The main effect of the action, which becomes effective June 1, 1944, is to set up a more precise set of standards for selecting "comparable commodities" that can be used as the basis for computing mark-ups on items that are not similar to any handled by the seller or his competitor in March, 1942. The changes apply to retailers, wholesalers and manufacturers.

This amendment does not affect the basic pricing method used under the General Maximum Price Regulation (Section 2), by means of which the seller takes as his ceiling price the highest price at which he or his competitor delivered or offered the same or a similar item in March, 1942. What is affected by the amendment is the second pricing method, which a seller uses when neither he nor his competitor sold or offered to sell the same or a similar commodity. Under this method, he refers to a "comparable" commodity for the purpose of securing a mark-up. Using his cost for the commodity he is pricing, applying the mark-up taken from the "comparable" commodity, he arrives at a ceiling price.

For producers or manufacturers, the "most comparable commodity" must meet these tests:

1. It must belong to the narrowest trade category that also includes the commodity being priced.
2. It must have a current unit direct cost varying from that of the commodity being priced by not more than 25 per cent of the latter cost.
3. It must be currently produced by the seller or, if he is not currently producing a comparable commodity, it must have been produced by him within the 12 months preceding his use of this pricing method.

Where more than one commodity meets all of the above tests, the one selected must be the one with a current direct cost nearest to the current direct cost of the new commodity.

Retailers, wholesalers and manufacturers are still required to report to the nearest OPA District Office their maximum prices, computed according to today's provisions, in those cases where they produce or sell a "comparable commodity."

Manufacturers submit their applications directly to the national office. The procedure has been speeded up so that the applicant, whether a retailer, wholesaler or manufacturer, submits a proposed maximum price which automatically becomes approved unless contrary action is taken by OPA within 20 days.

Orders previously issued under the General Maximum Price Regulation remain in force. It is not necessary for sellers to apply for new maximum prices if they have already priced in accordance with the regulation or have had their prices established by special order.

Forms used for reporting prices computed by use of the automatic formula have been revised to bring them into agreement with the new criteria and with other changes in the regulation. Retailers, wholesalers and manufacturers may obtain these forms from OPA field offices.

War Contracts Price Adjustment Board changes filing requirements

Simplification of the mandatory filing requirements for certain war contractors and subcontractors subject to the Renegotiation Statute has been provided for by a ruling released by the War Contracts Price Adjustment Board.

The ruling states that parent and subsidiary companies may satisfy the requirements for filing a mandatory form of Report by doing so on a consolidated basis.

Subsidiaries having renegotiable business must file the Standard Form of Contractor's Report made public by the Board several weeks ago, but may complete the Report simply by writing on it a statement that the information called for is contained in the consolidated Report filed by the parent company.

In response to inquiries from contractors, the Board announced that no special forms have been or will be prepared on which to make application for exemption of standard commercial articles from the provisions of the Renegotiation Statute. Standard commercial articles vary too widely, the Board pointed out, to make it feasible to prepare a form which would be suitable for all applicants.

Similarly, no form has been or will be prescribed for filing of applications for refunds under the retroactive application of the Statute's provision exempting from renegotiation so-called excess inventory profits; that is, profits attributable to increases in the value of inventories in excess of amounts that would reasonably be required for the performance of war contracts.

New plan covering civilian goods designed to help small producers

A policy for the resumption or increase of production with respect to labor areas, designed to assist in meeting the problem of an inadequate labor supply for war production programs, and at the same time to provide for increases in the production of the most essential goods for civilians, was announced recently by Donald M. Nelson, Chairman of the War Production Board.

The policy, as worked out by Mr. Nelson and Executive Vice Chairman Charles E. Wilson after extended surveys of the feasibility of "filling in the chinks" in America's production mechanism so as to provide maximum war production and the fullest possible support for the essential civilian activity, stipulates:

1. That approved production programs be placed, as far as possible, in Group 3 and Group 4 labor areas.

to Page 44 →

BOXES and CRATES

All Types of Wooden Packages

★

HINGE CORNER

NAILED CRATES

WIREBOUND

PLYWOOD

SHOP and TOTE BOXES

★

CHICAGO MILL AND LUMBER COMPANY

111 W. Washington Street Chicago 2, Illinois

→ *from Page 42*

2. That portions of such programs may be put into Group 2 labor areas if it can be shown that this can be done without interference with military production. Any such action must have the approval of the appropriate Vice Chairman.

3. That resumptions or expansions of production may be authorized for Group 1 labor areas only after clearance and approval by the Area Production Urgency Committee. Where no such committee exists, approval by the Executive Vice Chairman is required.

4. That these limitations shall not apply to plants whose total employment, after the proposed production increases have been effected, will not exceed (a) 50 persons, in the critical West Coast labor areas of San Diego, Los Angeles, San Francisco, Portland and Seattle, and (b) 100 persons elsewhere in the United States.

Mr. Nelson and Mr. Wilson pointed out that the placing of responsibility upon Area Production Urgency Committees for possible production increases in Group 1 areas carries out the principle of decentralization and, in effect, provides for a check by local authorities for all cases in which there may be reason to believe that there could be an increase in production despite a tight labor situation. They also said that *the exemption of small plants should provide both a measure of relief for small business and a considerable source of supply for various kinds of essential civilian goods.*

Buying power in the U. S. highly fluid

After two years of war, during which incomes of Americans underwent a greater increase than did their taxes, living expenses and investments combined, the buying power of individuals in this country in the highly fluid form of cash and checking accounts, had reached an all-time high of some $33,000,000,000, not counting funds belonging to business enterprises, according to the Federal Reserve Board.

The summary follows:

1. *Income, Expenditures and Taxes of Individuals*

(In billions of dollars)	1943
Total income payments	142.3
Personal taxes (Federal, State and local)	18.3
Income after taxes (disposable income)	124.0
Spent on goods and services	91.0
Income over taxes and spending (a)	33.0

2. *Savings and Investments*

Net purchases U. S. Bonds	13.8
Additions to private insurance and pension reserves	3.1
Savings deposits	4.5
Other savings (excluding currency and checking accounts)	1.1
Total savings and investments (b)	22.5

3. *Excess — Additions to Cash in People's Pockets and Individual Checking Accounts*

Income over taxes and spending (a)	33.0
Total savings and investments (b)	22.5
Excess	10.5

Restrictions and relaxations in W. P. B. orders

The following represents modifications of WPB orders of interest to appliance manufacturers and enamelers made during the month of April, 1944. These references are informative only. Complete orders should be reviewed where any action is indicated.

Restrictions during April

Containerboard, Interpretation to M-290, 4-12-44 — Any person who requires containerboard for any purpose whatever is prohibited from accepting it without specific authority of WPB.

Fibre Container Inventories, Direction 1 to L-317, 4-13-44 — Purchasers are directed to cancel or postpone any fibre carton orders that may not be received within inventory limitations.

Refrigerant Gas "F-22", M-28-a, 4-21-44 — Restricts deliveries of refrigerant gas "F-22," particularly for use in any system of comfort air conditioning and any installation for storing or dispensing carbonated or malt beverages.

Relaxations during April

Enameled Ware, Amended L-30-b, 4-3-44 — Enameled sauce pans, sauce pots, pus basins, bedpans, and instrument trays may be made in wider variety of sizes than previously, and production of enameled dippers and metal covers for enameled steam-table pans is permitted to be resumed.

Lighting Fixtures, Amended L-78, 4-14-44 — Restrictions on use of metal in fluorescent lighting fixtures were eased on use of metal to close ends of reflectors, and in shields, louvers, and baffles.

Plumbing Fixtures, Schedule XII to L-42, 4-12-44 — Allows manufacture of cast iron interceptors and removes restrictions limiting amount of metal permitted in wash fountains.

Refrigerator Quotas, Schedule VII to L-7-c, 4-1-44 — Domestic ice refrigerator quotas totaling 181,655 units for second quarter established. (This figure compares with estimated production of 125,000 units during first three months of the year.)

Stoves, Amendment to L-23-c, 4-19-44 — Permits construction of domestic cooking stoves with storage compartments. Production of five models of fuel oil circulating stoves instead of two is also permitted.

New ad man and editor —

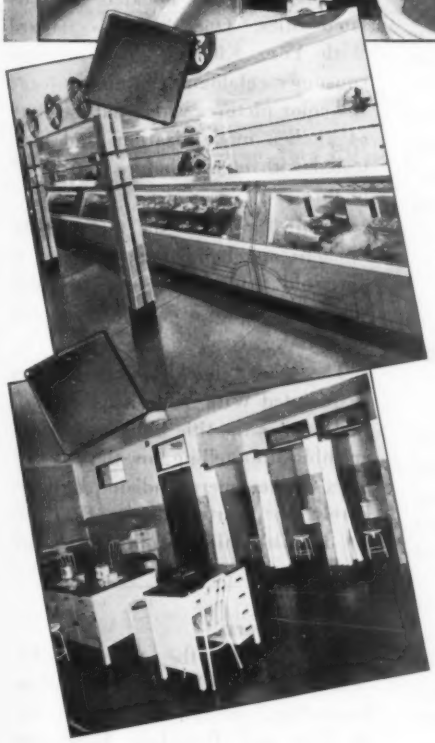
→ *from Page 30*

experience. He started as a cub reporter on a St. Louis newspaper a number of years ago, and was later the owner of the Clay County Advocate, which proved to be a stepping stone to his eventually going with the Western Newspaper Union in 1935 as service editor.

Mr. Moad later became interested in house organs and company publications. In 1940 he came to Chicago on a special job as house organ consultant, and subsequently joined the advertising staff of the Herald American where he served until he took over his new position at Chicago Vitreous.

The WALL of Today

VEOS *Porcelain Enamel on Steel* TILE



• Veos is not offered as a substitute for conventional clay-bodied tile, nor is it in the price range or comparable with synthetic surface-painted wall boards and other inferior wall covering. Veos is an improved wall tile, moderately priced, that provides in a glass-smooth surface of genuine porcelain enamel, the same high glaze and delicate colors of fine ceramics.

Veos will last as long as the wall to which it is applied, and carries an unqualified 25-year guarantee against surface crazing, cracking, or color fading. Installation is simplified with Veos. A patented self-locating foundation sheet eliminates expensive wall preparation, insures perfect alignment of every tile and saves time in application. It also provides ½" of standard thermal insulation.

A Veos installation saves 75% in weight. Ideal for ceilings as well as walls. Six standard sizes of tiles and ten pastel colors at no cost over black and white, permit unlimited use of color and ornamental design. In remodeling work, Veos is installed right over existing walls, without muss, fuss, or litter—and in less time than it takes to do a good paint job. Veos is proving its many advantages in millions of square feet of installations.

Veos is not available now but we invite your inquiries for post-war installations.

CLYDE PORCELAIN STEEL CORPORATION, CLYDE, OHIO

The Artistry of Ancient Ceramics PLUS *the Permanence of* MODERN STEEL

"Jinxed" porcelain enameled turf club . . *(Continued)*

cific. One of the main uses to which the porcelain enameled structure is being put is for barracks and working and training quarters for the depot personnel.

A 200-foot pier, for which dredging was being done, will connect the Depot with the Bay. The Albany Naval Landing Force Equipment Depot is now completing facilities to enable its mechanics to do a complete repair job on any craft brought there, from engine to propeller. The Bay waters will be used for trial runs.

An appropriation of $500,000 was made to start the project going. Before it is completed, well over that amount will have been required according to most estimates. To turn the porcelain structure into living and working quarters, open portions of the grandstand were closed in, mostly with wood. Some porcelain panels were tentatively asked for, but could not be had.

Construction of the turf club for its original purpose was handled by Maury I. Diggs, who was both designer and builder. Fabricators and enamelers were Ferro Enameling Company of Oakland; Frank Allen of San Francisco installed the porcelain. Jack Casson was general contractor.

Whether the Golden Gate Turf Club will ever again revert to the purpose for which it was originally intended, no one is prophesying just now; but everyone in the porcelain enamel industry — and for that matter, everyone in this region — is happy to see the largest porcelain enameled structure in the world doing a job for the war effort.

Eastern enamelers club first wartime meeting

(Continued)

Following the formal meeting the enamelers joined in a "get-together" to catch up on all of the personal experiences transpiring since the last group session.

Chief social event on the program was a 6:30 dinner served to the Club in the Raleigh Room of the Ritz-Carlton.

Judging from the first wartime meeting of the Eastern group it would appear that the members are determined to keep abreast of all current developments and to see that the eastern plants are "up and at 'em" when it comes to any improvements in plant processing.

"Joe Junk" helps Westinghouse quality control

(Continued)

on their identification badges. The department showing the least improvement is presented with "Joe Junk," a five-foot-high comic cut-out.

On one side of a large portable score board is shown the monthly plant wide ratio. On the opposite side is shown the individual departmental scores posted in their proper sequence with the name of the winning department in large letters at the top. This board is mounted on casters and moved to a new department each day to enable all of the employees to keep posted on the progress of the campaign. It is also wired so it can be plugged in and lighted at each point of display.

Each of the first four months of the campaign saw improvement over the previous month which indicates the quality campaign slogan — "Let's Make It Good, We Said We Would" — means more than a pretty phrase.

Sanitary porcelain enameled ware is safe for use in the nursery because bacteria cannot lodge in its smooth, non-porous surface.

PUBLICATIONS . . . *(Continued)*

leased a new eight-page booklet on the SW Tangent Bender, which is said to be unique in its ability to edge bend sheet metal in the lighter gauges.

The booklet describes how tangent bends in many convenient forms can be bent cold in one operation, resulting in the metal being smoothly upset so that no further finishing is required. Modern "streamlined" designs in refrigerators, kitchen cabinets, stoves, metal furniture and bathroom equipment are illustrated to suggest applications for the equipment.

Further information may be obtained by writing this publication, or direct to the manufacturer. Ask for booklet No. 53-T.

For Consumers and Dealers

Youngstown Pressed Steel Division of Mullins Manufacturing Corporation, Warren, Ohio, have published two new colorful booklets with related titles. One, "Get Acquainted With Your Kitchen," is a wartime consumer catalogue containing many full-color pictures which tell the story of kitchen modernization, and illustrated with many "before and after" pictures.

Mullins points to the fact that the kitchen merchandising business is "pre-sold" and awaits only the day when merchandise can be made and delivered.

The second booklet, entitled "Get Acquainted With Your Kitchen Business," is, as the title indicates, a dealer publication telling how the Youngstown kitchen merchandising business barely got started before the war, yet it made high profits for many dealers.

For Enamelers

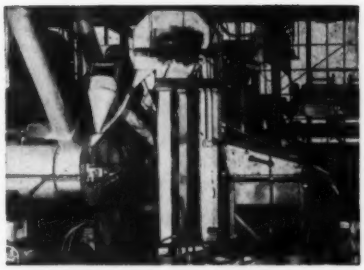
Don't forget the new booklet, "Preparation of Metal for Porcelain Enameling," by the Joint Committee of Frit and Porcelain Enameling Sheet Manufacturers, as announced in May *finish*.

Write to: H. L. Moody, at 19 West 44th Street, New York 18, New York.

Zircon for Enamel Frits

Zircon of outstanding quality. Exclusive processes and equipment eliminate impurities. Adequate supply assured by enlargement of production facilities to provide for increased use by the vitreous enameling industry.

Also high-grade Zircons for
Spark Plugs · Super Refractories · Glazes, etc.



Consult us on
Controlled grinding problems
Mineral separation problems
Contamination-free grinding

Orefraction, Inc.

7516 Meade Street **Pittsburgh 8, Pa.**

Advertisers' Index for June 1944, Finish

	PAGE
AMERICAN ROLLING MILL COMPANY	1
CERAMIC COLOR & CHEMICAL MFG. COMPANY	2nd COVER
CHICAGO MILL & LUMBER COMPANY	43
CHICAGO VITREOUS ENAMEL PRODUCT COMPANY	2 & 3
CLYDE PORCELAIN STEEL CORPORATION	45
FERRO ENAMEL CORPORATION	36 & 37
HARSHAW CHEMICAL COMPANY	40
HOTELS	48
INLAND STEEL COMPANY	8
OREFRACTION, INC.	47
PEMCO CORPORATION	4th COVER
PORCELAIN ENAMEL INSTITUTE	6
UNITED STATES STEEL (Carnegie-Illinois Steel Corp.)	26
VITREOUS STEEL PRODUCTS COMPANY	4
YOUNGSTOWN METAL PRODUCTS COMPANY	3rd COVER